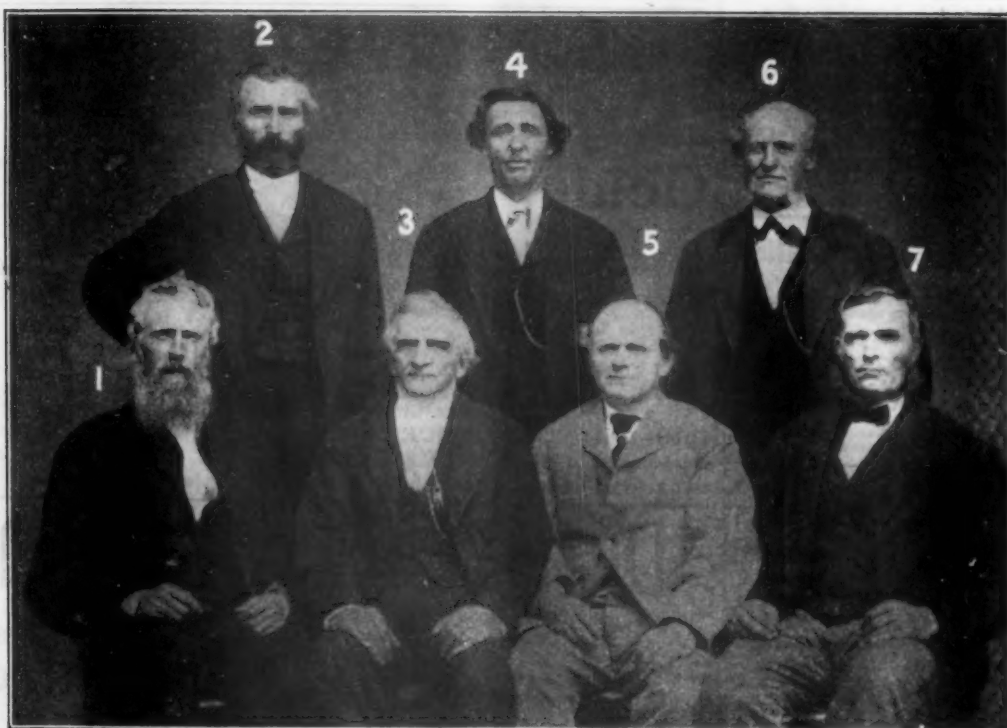


# AMERICAN BEE JOURNAL



Group of Bee-Keepers of Nearly Forty Years Ago



1. Aaron Benedict, of Ohio.  
2. Dr. G. Bohrer, of Indiana.

3. A. H. Hart, of Wisconsin.  
4. A. F. Moon, of Michigan.  
5. Adam Grimm, of Wisconsin.

6. N. C. Mitchell, of Indiana.  
7. Elisha Gallup, of Iowa.

(So far as known, Dr. Bohrer is the only one of the group still living—now in Kansas.)



# American Bee Journal



PUBLISHED WEEKLY BY  
**GEORGE W. YORK & COMPANY**  
 334 Dearborn Street, Chicago, Ill.

## IMPORTANT NOTICES.

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**THE WRAPPER-LABEL DATE** indicates the end of the month to which your subscription is paid. For instance, "dec 7" on your label shows that it is paid to the end of December, 1907.

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Goes to press Monday morning.

## National Bee-Keepers' Association

### Objects of the Association.

- 1st.—To promote the interests of its members.
- 2d.—To protect and defend its members in their lawful rights.
- 3d.—To enforce laws against the adulteration of honey.

**Annual Membership Dues, \$1.00.**

General Manager and Treasurer—  
 N. E. FRANCE, Platteville, Wis.

If more convenient, Dues may be sent to the publishers of the American Bee Journal.

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 are just the thing.  
 We send them by Return Mail



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AND SAVE MONEY

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 Because the bees and accept it more readily.

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It stands on its OWN NAME and its OWN FOUNDATION, to which alone it owes its reputation and merits.

We are now ready to make prices for next season for **WORKING WAX** for CASH and for full line of Supplies. Wholesale and Retail. **Free Catalog and Samples.**

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Untested, 2 for \$1; Warranted Untested, 3 for \$2; Tested, 4 for \$3.  
 2-frame Nucleus with Tested Queen for June delivery, \$3, f.o.b. Milo. Light or dark Italians at choice. No disease. Safe arrival and absolute satisfaction guaranteed. I will send 1 ounce of Catnip Seed free to each of the first 25 ordering Queens to the amount of \$2.00 or over.

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Reference—First National Bank, Nevada, Mo.

13A4t



Mention Bee Journal when writing.

## American Bee Journal

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And Other LEWIS BEE-SUPPLIES

Good Goods and Prompt Shipment

Any bee-keeper can save money, as long as the goods last, on almost any supplies needed next season, by taking advantage of our

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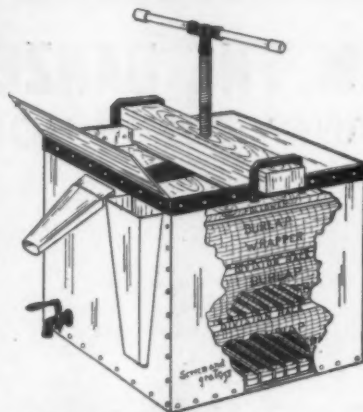
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Quote us prices on Honey and Beeswax. Honey in 60-pound cans for sale.

**H. M. ARND, Proprietor, York Honey and Bee-Supply Co. (Not Inc.)**

Long Distance Telephone, North 1559. 191 AND 193 SUPERIOR ST. CHICAGO, ILL.  
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Made of artificial stone. Practically indestructible, and giving entirely satisfactory results. Comb foundation made easily and quickly at less than half the cost of buying from the dealers. Price of Press for L. frame sheets, \$2.00. Other sizes, 25 cents extra. Price of the Press making the foundation directly on the wired frames, \$2.50, any size wanted.

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KNOXVILLE, TENN.

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**For Sale 160 Acre Farm and 100 Colonies of Bees.** Good out-buildings; good 8-room house—on Wisconsin river. Address, **O. C. FITTS,** 10A13t KILBOURN, WIS.  
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Please mention the Bee Journal.

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Write us now for our Catalog and get low prices on good, honest,

#### BEE-KEEPERS' SUPPLIES

Our specialty is making Sections. All other goods up-to-date.

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EQUIVALENT

Not a Fish Story but a FACT.

Annual cash dividend to bee-keepers on Supplies bought during

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New Goods, Best Quality. To-morrow will be too late. Write TO-DAY.

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Established 1889.

## A Big Lot of the Newest Dovetailed Hives

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I have just unloaded into my warehouse a carload of Root's newest Dovetailed Hives, and they are as handsome a lot of goods as were ever seen. These hives have special covers, special bottom-boards, and, in fact, special features throughout that have been tested and indorsed by leading and successful bee-men everywhere. Not only are they right in principle, but they are built of clear, bright stock, finished like a piece of cabinet work, and perfectly fitted throughout.

I have them ready for immediate shipment, and can fill orders quickly. Indianapolis is so situated that goods from here make quick time on through freight trains, saving transportation



charges and saving time. I make a specialty of careful packing, and receive many letters like the following:

BLOOMINGDALE, IND.

WALTER S. POWDER, Indianapolis, Ind.

Dear Sir:—The supplies you have been sending me could not be excelled in workmanship. I have secured surplus honey from new swarms in Danzenbaker hives when others failed to secure surplus, even with old colonies.

Yours truly,

D. W. TUCKER.

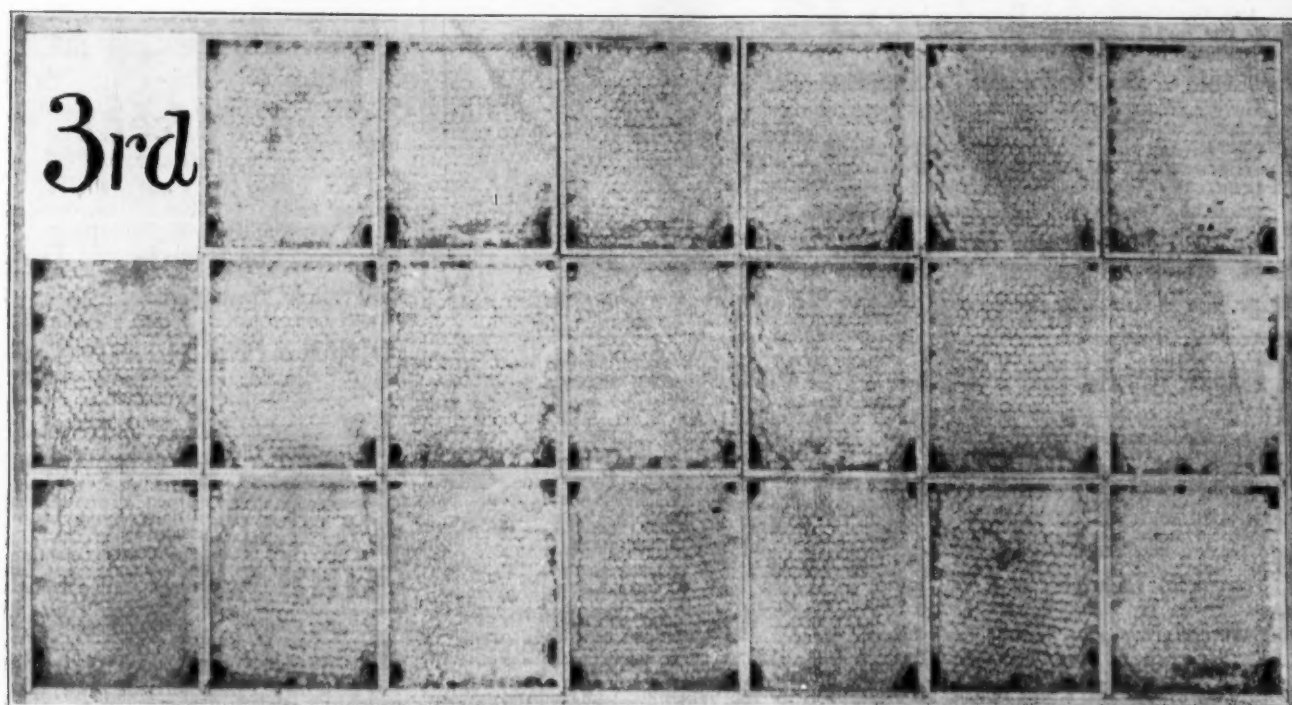
Root's goods at Root's prices. New Metal-Spaced Frames, Danzenbaker Hives, and all other desirable bee-keepers' supplies. Catalog free.

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**Walter S. Pouder** 513-515 Massachusetts Avenue  
INDIANAPOLIS, INDIANA

# American Bee Journal

## HONEY FROM THE DANZENBAKER HIVE THE FANCY COMB HONEY HIVE



### More Honey

(That is, more honey in the super at the right time.)

### Better Honey

(More honey that will grade fancy and extra fancy.)

### More Money

(No question but what the producer of a fancy and extra fancy grade gets a better price, and does it easier.)

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Williamsport..... E. E. Pressler  
633 Lycoming Street  
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Dallas..... Texas Seed and Floral Co.  
San Antonio..... Udo Toepperwein  
Uvalde..... D. M. Edwards  
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**Virginia**  
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\* These dealers buy our goods in carload lots but supplement them with local-made goods.

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(Entered at the Post-Office at Chicago as Second-Class Mail-Matter.)

Published Weekly at \$1.00 a Year, by George W. York & Co., 334 Dearborn Street.

GEORGE W. YORK, Editor

CHICAGO, ILL., APRIL 11, 1907

Vol XLVII—No. 15



### "Keep Your Colonies Strong"

This motto, under the title of Oetti's Golden Rule, is given in the closing paragraph of Langstroth's classic work as the essence of all profitable bee-keeping. It is generally agreed that the strong colonies are the profitable ones; and probably few would dispute the statement that 2 colonies of 30,000 bees each will not store as much as the united force of 60,000 bees in one colony.

Yet some modify the motto by saying: Know the honey-resources of your locality, and have colonies strong for the harvest; but do not have a lot of bees reared to come upon the stage as a lot of idle consumers when there is nothing for them to do. Certainly it ought to be worth while to avoid needless consumption, when it is considered that the annual consumption of a colony is somewhere from 100 to 200 pounds of honey. But when we come to particulars, the problem does not seem so easy. It is not easy to tell in advance at what time a given plant will be ready to offer its nectar, nor indeed whether it will offer any. If one knows about when a flow may be expected, one may figure when the queen should lay eggs to be ready for it; but how is one to manage to have a small force in the hive during a dearth between two flows? Those who can so control matters as to have a strong force when a flow is on, and a strong force only then, are wise to use such control; the average bee-keeper will do well to get his colonies strong as early as he can in the season, and then try to keep them so.

### Narrow Frames for Extracted Honey

E. D. Townsend says in the Bee-Keepers' Review that manufacturers list no proper frame for extracting purposes, which, he

thinks, should have neither top-bar, end-bar nor bottom-bar more than  $\frac{3}{8}$ -inch wide. He says:

With this style of frame in our supers, spaced  $1\frac{1}{4}$  inches from center to center, we get great, fat combs; then, with a long uncapping knife, cut clear down deep, clear to the frame. In this way we get more wax in the uncapping tank; but the greatest advantage is, we can uncup a whole comb at one stroke.

That seems reasonable, and perhaps there's nothing original about it. But did you ever think of such narrow frames as affecting the quality of the honey? Here's something well worth thinking over:

In producing honey for exhibition purposes, we insert full sheets of foundation in between our extracting combs, in the supers of some of our most powerful colonies; and, after quite an experience along this line, we have never found a better way to produce a superior article of extracted honey. While it would not be practical to produce all our extracted honey direct from foundation, the next best plan is to fill our supers with these deeply uncapped combs. With these the cells are only about half an inch deep; and this drawing out of the combs when being filled with honey, gives the bees an opportunity to cure the honey nearly as well as they would in drawing out foundation. Never give thick extracting combs during a heavy flow of honey.

### How Much Nectar Per Acre?

The man who should make out a reliable table showing the number of bees that could be supported upon each one of the more important honey-plants on a given surface would be entitled to a high niche in the bee-keepers' hall of fame. The data are so changeable, so elusive that no one can say with any degree of certainty how many acres per colony are needed in any given case; and the worst of it is that with the passing years we seem to

be making no progress in gaining the desired knowledge. Here comes a note from Dr. Miller, saying:

"MR. EDITOR:—Before we get to blows will you please settle a little matter between Mr. Atwater and me? On page 208, he takes exception to my guess that 200 colonies might have good picking on 300 acres of white clover if said white clover happened to be in the mood of yielding. He doesn't say just what the figure should be, but evidently he thinks I expect too much of white clover. Which of us is right?"

"I may say to you privately that after getting a little additional light from his article, and after thinking over the matter a little more fully, it begins to seem to me that he's nearer the right of it than I am; but please don't side with him any more than you have to, for I don't want him to crow over me too much. The only datum I can give you on which to work, is a rough guess at how thick bees are on a piece of white clover when bees are doing good work on it. Of course, it can only be a rough guess; but just as I now recall, I should say that when bees are 5 feet apart all over the field they are doing good work."

It is not an easy thing to decide between two guessers, with no foundation to work upon except a single item, and that a guess. Other things being equal, Mr. Atwater ought to make the closer guess in the case, for "Utah's" conditions are probably more like conditions in Idaho than in Illinois. Certainly in Illinois, when "hundreds, or even thousands, of acres of as fine white clover as one could wish, are covered with a mass of bloom" covering a period as long as "during part of May, often all of June, with more or less bloom for many weeks later," one would expect as a rule good crops, whereas in Idaho Mr. Atwater says they are light.

It may be well in passing to note the one point on which Mr. Atwater makes a definite guess. It is that in favored locations each acre will support one colony of bees, provided 10 percent of it is covered with sweet clover and the other 90 percent with alfalfa. That guess stands till some one gives reasons for a different one, and it is of value, even though somewhat vague.

As between white clover and alfalfa, it may be mentioned that unless a field of alfalfa is used for raising seed its seasons of bloom, however abundant, are likely to be short, the mower being likely to level it as soon as it is of most value, if not before; whereas white

# American Bee Journal

clover, being subjected almost entirely to grazing, yields continuously for weeks.

Coming directly to the case in hand, let us do a little figuring, estimating that 20,000 field-bees belong to each colony. If 200 colonies are working on 300 acres, that makes  $1\frac{1}{2}$  acres for each colony, or for each 20,000 fielders. In  $1\frac{1}{2}$  acres there are 65,340 square feet, giving 3.27 square feet to each bee; so if they are evenly distributed over the field they will be about 1 foot 10 inches apart. If we take Dr. Miller's guess of 5 feet apart, each bee will require 25 square feet of territory, making for 20,000 bees 500,000 square feet, or nearly  $11\frac{1}{2}$  acres. According to that, instead of 200 colonies for 300 acres, only 26 colonies would be supported on that number of acres.

If Dr. Miller doesn't like the decision, he must either make bees work with less elbow-room than 5 feet, or else he must show that 20,000 is not the right estimate for the number of fielders in a colony.

## "Honey" from Buttermilk

In Praktischer Wegweiser it is related that in a North Germany newspaper an advertiser offered for the modest sum of 28 cents to send a recipe by which one could easily make out of a quart of buttermilk 2 pounds of the finest, best-flavored honey. The enterprising editor sent the required amount, and then published in Prakt. Wegweiser the recipe verbatim. Explicit instruction is given as to the right kind of vessel in which to cook the honey, and just how to stir, etc., one item being that to each quart of buttermilk must be added 1 pound of sugar! We may expect to hear shortly that German bees are cut out of business!

## Cleaning Up Wet Extracting Combs

Sometimes when wet extracting combs are given back to the bees to clean up, instead of carrying the honey all down into the brood-chamber, the bees mass it in a few cells of the extracting combs. H. Potter says in the British Bee Journal that he makes sure of having the extracting combs left entirely empty by returning them to the bees upside down. Not many, however, will find it necessary to resort to such an inconvenient method.

## Reversed Brood

According to an item in Prakt. Wegweiser, the occasional finding of brood with heads in the bottom of the cell is due to the presence of minute parasitical insects, which trouble the larvæ and cause the abnormal position.

**"Songs of Beedom."**—This is a beautiful 16-page-and-cover pamphlet, 6x9 inches in size, containing 10 bee-songs—words and music—all the songs so far written specially for bee-keepers, we believe. It is nice, as well as convenient, to have these songs all in one binding. Every bee-keepers' organization should have copies for use at conventions. They could be sold to members after using once, or held by the secretary for use at future meetings. Of course, every bee-keeper's family will want at least one copy. It is sent, postpaid, for only 25 cents, or 3 copies for 60 cents; or, we will mail one copy with the American Bee Journal one year—both for \$1.10. Send all orders to the office of the American Bee Journal.



**A Bee-Keeper's Epitaph.**—Mr. R. B. Ross, Jr., of Quebec, Canada, sends the following clipping taken from the Rochester (N. Y.) Herald, referring to the epitaph of a man who was stung to death:

Among the many curious inscriptions that are to be found on the tombstones that mark the last resting places of some of the early pioneers of the town of Manchester, one of the most curious is in what is known as the old Greenhouse cemetery, on a tombstone erected in 1814, to the memory of Timothy Ryan. On May 12, 1814, he was attacked by his bees and stung to death. The following epitaph appears on his tombstone:

A thousand ways cut short our days,  
None are exempt from death.  
A honey-bee by stinging me  
Did stop my mortal breath.  
This grave contains the last remains  
Of my frail house of clay;  
My soul is gone—not to return—  
To one eternal day.

## Bees at the Jamestown Exposition.

—Mr. Charles Koeppen, of Fredericksburg, Va., has been granted a concession by the Jamestown (Va.) Exposition Co. to make a demonstration with live bees in a wire-cloth cage, and also a motion-picture apparatus in addition to the privilege of selling standard bee-books. Mr. Koeppen is erecting a structure 30x50 feet, and the whole display, when installed, will cost him about \$1400. The price of a single admission to this part of the Exposition will be 10 cents.

We can not conceive of anything better to advertise the bee and honey business than what Mr. Koeppen has undertaken to do at the Jamestown Exposition. We hope to hear of his success all through the months during which the Exposition will be opened. Of course, every bee-keeper who attends it will be sure to take advantage of Mr. Koeppen's demonstrations.

**Honey and Noisy Enthusiasm.**—The Youths' Companion contains the following which seems to have a lesson in it taken from the bees:

### HONEY IN IT.

When the Salvation Army first came to America, 25 years ago, says the author of "The Prophet of the Poor," it found a ready advocate of its methods in the Rev. Thomas K. Beecher. Mr. Beecher had just had a lesson, in parable form, from a certain "Bro." Anderson, which he never forgot.

Brother Anderson was at that time the pastor of a colored congregation which was noted for the noise and enthusiasm of its services. Incidentally the old man wielded a whitewash-brush, but he was known as an exhorter of no mean ability. One day he persuaded Mr. Beecher to address his congregation.

The occasion seemed a good one for reproving the congregation for their uproarious methods, and Mr. Beecher did so. "Let all things be done decently and in order," he

concluded. Then Bro. Anderson rose to speak.

"I love Brudder Beecher; I love to hear him preach dis afternoon," he said. "He's our good frien'. And he say dat some folks goes up to glory nois'n' shouting, and some goes still like, 's if they's ashamed of what's in 'em. And he say we better be more like de still kind, and de white folks'll like us more. He say de boys and gels stan' in de do'way and laugh at us, and mock at us 'cause o' de way we goes on."

"Yas, I see de boys and gels stan' all las' winter roun' de door, an' under de windows, an' laff; and dey peep in and laff. But I 'member what I saw las' summer among de bees."

"Some of de hives was nice an' clean an' still, like 'spectable meetings, and de odders was a bustin' wid honey. De bees kep' a-goin' and a-comin' in de clover; and dey jes' kep' on a-fillin' de hive till de honey was a-flowin' like de lan' o' Canaan. An' I saw all roun' de hives was ants and worms an' black bugs, an' dey kep' on de outside. Dey wa'n' bees. Dey couldn' make de honey for darselves. Dey couldn' fly to de clover an' to de honeysuckle. Dey jes' hung roun' de hive and lib on de drippin's."

"So de boys an' gels hang roun' yar. Come in—we'll show you how de gospel bees do. Come in an' we'll lead you to de clover."

"You won't come in? Well, den poor things, den stan' roun' de outside an' have de drippin's. We's got honey in dis hive."

"As he spoke," said Mr. Beecher, "I seemed to see my own sermon shrinking and fading away."

**To Foreign Subscribers.**—We wish to say that none of our special offers apply to foreign subscribers, on account of the extra postage, except Canada, Mexico, Cuba, and the United States possessions. Also, we send to foreign countries only the American Bee Journal.

**Honey as a Health-Food.**—This is a 16-page honey-pamphlet intended to help increase the demand for honey. The first part of it contains a short article on "Honey as Food," written by Dr. C. C. Miller. It tells where to keep honey, how to liquefy it, etc. The last part is devoted to "Honey-Cooking Recipes" and "Remedies Using Honey." It should be widely circulated by those selling honey. The more the people are educated on the value and uses of honey, the more honey they will buy.

Prices, prepaid—Sample copy for a 2-cent stamp; 50 copies for 70 cents; 100 for \$1.25; 250 for \$2.25; 500 for \$4.00; or 1000 for \$7.50. Your business card printed free at the bottom of front page on all orders for 100 or more copies. Send all orders to the office of the American Bee Journal.

**Amerikanische Bienenzucht,** by Hans Buschbauer, is a bee-keeper's handbook of 138 pages, which is just what our German friends will want. It is fully illustrated, and neatly bound in cloth. Price, postpaid, \$1.00; or with the American Bee Journal one year—both for \$1.75. Address all orders to this office.

# American Bee Journal



Conducted by LOUIS H. SCHOLL, New Braunsfels, Tex.

## The "Sages" of Texas and of California—Color of Sumac Honey

MR. LOUIS H. SCHOLL:—I notice in your department of the American Bee Journal (page 90), a letter from J. E. Chambers, in which reference is made to sage honey as dark, and I inferred that sumac yielded white honey. With me sage is the principal source of surplus, and if taken off before other honey is mixed with it, it is water-white, and the finest-flavored honey in the world. I think sumac comes later, and is amber. Soon tarweed comes in, and the honey is then darker and considerable off flavor. I have black or button sage and white, coming in the order named, 2 or 3 weeks apart. The black sage yields the whitest honey. Can you account for the difference? A. J. BURNS.

Lusardi, Calif., Feb. 5.

Mr. Burns' letter was forwarded to Mr. Chambers for reply, which is given here:

MR. LOUIS H. SCHOLL:—I note what you have to say about the different local names for plants. I am sorry indeed to learn that any one could be misled by such trifles. I have always known that the little common sage, found to a great extent all over Texas, was not the same as the white, blue, and black sage of California, and I have never said that it was. While I am no botanist, there is no man in Texas who watches the different flowers more carefully than I do, and I think there are few who follow the bee-papers more closely. This being true, I would indeed be a pretty one not to know the difference between these plants.

The sage we have here is a small bush—red sage with dun-colored flowers; and white sage with larger leaves but flowers of the same color; the leaves of a strong mint flavor. I know you have seen it. In this locality it blooms in the latter part of June, and in seasonable years until August, and yields a very dark, strong honey, in Southwest Texas. There is a large kind common to East Texas. It has a seed-pod, which, when broken, shows two flat sides and a round side. It is dead at this season, but I am sending you a lot of the dried leaves. Now, this is about all I know about it, and, though not much, is perhaps sufficient to enable you to identify it. I am also sending you a sample of the honey from it.

I note Mr. Burns says that sumac is amber in color; it may be in his locality—I can't answer for California. I am not keeping honey records for that part of the country, but here it is, if not white, so very close to that color that we all call it white. I saw sumac honey at San Antonio, but none of it was as light as ours when pure; however, as you know, it is not often that we can get honey that is absolutely free from any admixture. I think there are but very few apiarists who know how much bees move and change honey about in the hives, and this is one reason why it is so hard to get honey all clear of admixtures. And you know how impossible it is to get every particle of honey out of the combs when extracting, or even to uncup every cell. The only way I could ever be

sure of getting all honey from a given source was to hive a swarm on starters during a flow, and when there was only one kind of plant in bloom such swarms, if given combs that are new, will, of course, get all the honey from the desired source. But time must be given for them to use up the honey that they carried in their honey-sacs before the new combs are given, or else an admixture will result. J. E. CHAMBERS.

In writing to Mr. Chambers I mentioned the inadvisability of using common or local names when speaking of honey-plants of different localities, as a name may mean one thing in one locality and quite another thing somewhere else. I believe there is hardly anything else in this respect like common names of plants. Just as it happened, that what was called "sage" in Texas was not the sage of California, so well known to the bee-keepers. Here in Texas it is exactly one of those cases of using common names wrongly for plants that do not obtain that name in botany; hence, such names can not be relied on, and should never be used unless the name is a universal one, and means one and the same thing everywhere.

Instead of the real sage of California,



ANOTHER KIND OF INSPECTION WORK.

that mentioned by Mr. Chambers is not a sage at all, but a croton instead, belonging to the Spurge family (*Euphorbiaceæ*). These crotons are quite common in our State, and there are many species. That referred to as "red sage" is very probably *Croton glandulosus*, L., while the "white sage" is *C. texensis*, Muell. or Texas Croton. The one of eastern Texas,

spoken of, is *C. capitatus*, Michx., a large croton. I have seen bees on all of these, but the "red sage" seems to give more honey than the others, at least in the localities where I have observed it.

Here is an instance again that shows that it behooves us, as bee-keepers, to study botany, or at least so much of it that we may be able to know our honey-plants by their right names. The study of botany has not only been valuable to me in my bee-keeping, but of great interest as well.

## One of My Inspection Trips

The picture here shown is a reminder of one of my trips of inspection, and shows to some extent the hospitality shown "the inspector" upon this occasion, quite different from some of the experiences on other occasions.

The bee-keepers involved here, instead of objecting to such inspection of their apiaries, not only willingly allowed this, but insisted not only on a thorough inspection but thorough treatment. "The inspector" was met at the train by them, taken to their homes and cared for. Then preparations were made for the extended overland trip to inspect the apiaries from 25 to 30 miles west of the town, and lasting over a week. The picture shows the inspection party in one of the "camps." Over 2000 colonies were examined, but only two cases of disease were found, which, only a short time before, had been imported into the neighborhood with a lot of bees shipped from another State. These cases were promptly dealt with and eradicated, thus leaving the district free of the disease.

## Location and Management—Not the Hive

I'll tell you, the location and management have more to do with the yield of honey you get than the kind of hive you use, supposing, of course, you use one of the many frame hives on the market to-day.

# American Bee Journal

## A GREAT DIFFERENCE IN LOCALITIES.

I have just returned from a visit to all of my out-yards—3 in number. The bees in No. 1, about 4 miles from home, seemed to be getting a living from fruit-bloom; only 22 colonies in this yard.

Yard No. 2 is 10 miles from home, and has 66 colonies; but the bees at this yard were very cross, and much inclined to rob. There is no fruit-bloom to speak of within 3 miles of these bees.

Yard No. 3 is about 13 miles from home, or say 3 miles the other side of yard No. 2. This yard has 49 colonies, and is almost surrounded by fruit of various kinds, mostly wild fruit. Here I found the bees roaring, and rushing in and out, as if a real June honey-flow were on. And the bees were evidently gathering honey fast for the time of year.

I have given the above so that the

readers can see what a difference only a few miles will often make in a location.

## FIELD-BEES STORING NECTAR IN THE CELLS.

The American Bee Journal comes out with the positive assertion that the field-bees deposit their loads of nectar directly in the cells themselves, and that it is not given to the young or nurse-bees, in the way we have been taught. In this we will have to agree to disagree with that observer, or else his bees act differently from our bees of Texas. I have watched the field-bees deliver their loads to the nurse-bees hundreds of times, and have never yet seen the field-bees go direct to the cell and deposit their loads of nectar. This may not be of much importance, but it is at least very interesting to me. I should like to hear from some of our more scientific writers on the subject.

L. B. SMITH.

Rescue, Tex., March 20.

more than justice. The case of wheat transportation you mention is not exactly parallel. Most well-wishers of the human race (except possibly those whose own toes are pinched) favor the lowest possible rates on wheat, that the poor may have bread as cheaply as possible. No similar consideration works in favor of honey; and it is not likely ever to get into the specially-favored class. Page 168.

## SWARMING AND ENERGY.

C. W. Dayton seems to run his pen through a troublesome truth when he says, "This swarming disposition is an indication of energy. If they lack this energy they will fall short of energy for other accomplishments." Perhaps the case is not quite so bad as that. I think some cases of disinclination to swarm occur among bees of the most energetic character. Page 169.

## HIVE-ENTRANCES IN OUTDOOR WINTERING.

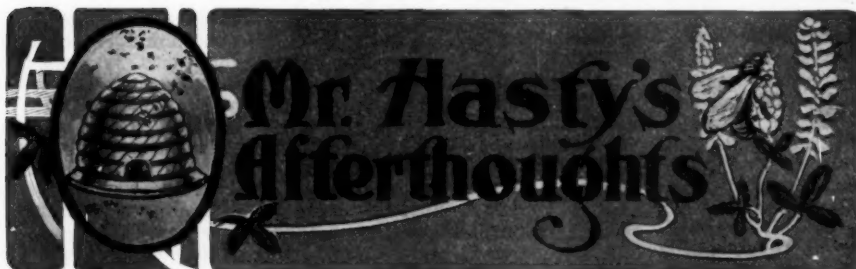
The experience of P. E. I., that a heap of little spruce-boughs piled over the entrance turned out the best of 7 different ways of doing—that novelty is fresh and toothsome. Such boughs will not wad up and obstruct passage as grass and leaves do. Lots of us may some time have opportunity to profit more or less by this if we do not forget it. But covered up deep in snow for all the latter half of the winter—don't believe I would risk that, not even with the boughs underneath. Too much temptation to breed themselves to ruin. Page 174.

## YARNS DOMESTIC AND FOREIGN.

Those two yarns of the London Tribune and the Minneapolis Journal furnish a good "tit for tat" between bee-editors on two sides of the Atlantic. But there is this much to be said in favor of "we'uns." The Yankee yarn was not intended for full belief, while the British yarn was. As to the latter, we have scarcely had so fine an example of how many times the mere writer will "get his foot in it" if he reads up about bees and then tries to write about them. Page 186.

**Why Not Advertise?**—There are many dealers in bee-supplies, and those who have bees and queens for sale, who are not now advertising, that might increase their business by advertising in the American Bee Journal. The rates charged are very low, as will be seen by referring to the second page of this number. During the next 6 months will be done the bulk of the season's business among bee-keepers. Why not begin at once to let the readers of the American Bee Journal know that you have something to sell? Our advertising columns are open only to those who will give their patrons "a square deal." If you are in that class we will be pleased to have your advertisement in our columns.

**Our Wood Binder** (or Holder) is made to take all the copies of the American Bee Journal for a year. It is sent by mail for 20 cents. Full directions accompany. The Bee Journals can be inserted as soon as they are received, and thus preserved for future reference. Or we will send it with the American Bee Journal a year—both for \$1.10. Address office of the American Bee Journal.



The "Old Reliable" as seen through New and Unreliable Glasses,  
By E. E. HASTY, Sta. B. Rural, Toledo, Ohio.

## TAKING BEES OUT OF CELLARS.

So Mr. Doolittle, although he has a wheelbarrow with springs, prefers to obviate jars still further by padding the top with folded bed-quilts. With such an arrangement he successfully wheels bees around in July and August. His *modus operandi* of getting bees out of the cellar is perhaps as good as anything published; and yet one kind o' feels that there is something yet to be desired. Would it be worth while to have wet cloths enough for all the entrances, and to put them all on at once? And would a bountiful supply of thin ice be worth saving up (putting it in the ice-house); and slide a dozen square inches of it into each entrance as the cloths are put on? I don't winter bees in the cellar, and so don't draw on much experience in making these suggestions. It seems whatever bees do get out near the cellar-door hang around there, and most diligently attend to a business which even hardened old bee-keepers don't altogether admire. I believe Mr. D. didn't mention open doors the night before, which (under some conditions) is said to help, if my memory serves me right. Page 148.

## INFERIOR WAX FROM STEAM-PRESSES.

This remark of Mr. Byer is not often printed, if at all: "For some reason wax from the steam-presses is never of as good a quality as that obtained by other means." And we shall look forward with interest to see what the 2

years' supply of slumgum pans out in the Hershiser press. Page 150.

## CLEANING SECTIONS RAPIDLY.

"Colorado's" experience is instructive to all that hire help to clean sections, and probably to all of us. Taking the sections out and placing them in a pile so the scraping can proceed steadily just doubled the amount done. Even if we don't hire we find with ourselves that too much changing from one thing to another is wasteful of time. Page 151.

## TOO THIN BOTTOM-BOARDS.

Yes, Dr. Bohrer, I have already proved the manufacturers who give us the too thin bottom-boards and such. Or was it the size of the "lump o' sweetness" you would have us seek that you wanted me to endorse?—not less than 80 pounds nor more than 300. If 300 pounds of "honey" be desirable, why not 400 pounds be more desirable? Tell me that. Page 168.

## LOWER FREIGHT-RATES ON HONEY.

Is that the way you give it to them, Mr. Greiner? Men are indeed selfish; but most of them *can*—if you go at it in the right way, and keep at it long enough—be made to consent that their fellow men shall receive *justice*. The idea is that our Western brothers are working to be relieved from unjust classifications and unjust rates. Let's not dump any logs and boulders in their road until they ask for something



## Spring Management of Bees

BY G. M. DOOLITTLE.

In a letter lying before me I find these words:

"Will Mr. Doolittle please tell us through the columns of the American Bee Journal what should be done from early spring to the first flow of nectar which gives a surplus, which is white clover in my locality? I winter my bees in the cellar, and I wish you to begin with the setting from the cellar."

Some of the articles which I have written lately cover much of this ground, but perhaps I can make matters a little more plain if I try again. As I take it for granted that the questioner has only his one home-yard of bees, I will tell, or answer, him from that standpoint, rather than from the standpoint of out-apiaries. I always set out my bees at the home-yard alone, so have a spring wheelbarrow with a few thicknesses of old carpet or old blankets on it, so that the bees will experience no jar from running the wheelbarrow rapidly. This padded barrow and a lighted smoker are left at the door of the cellar, when the cellar door is carefully opened and I quickly step in, bringing out the hive nearest the door, and placing it on the wheelbarrow, quickly shutting the door again, so that those remaining in the cellar may not be aroused by the light and outside air coming in on them.

The bees in the hive now begin to realize that their long winter nap is at an end, and if I took no precautions, they would be out of the hive and in the air before I could wheel them to the stand they were to occupy, many of them losing their home, and stinging me badly. To avoid this, I blow 4 or 5 puffs of smoke in at the entrance, closing the same by putting a wet cotton-cloth of suitable size sufficient to cover it without any special work of tucking it about, when this colony is rapidly wheeled to where it is to stand for the season. A few more puffs of smoke is given them, when the hive is set upon its stand and the entrance adjusted to suit the size of the colony, which can be very nearly told by the amount of buzzing that occurs on the blowing in of the smoke.

With this treatment the bees will commence to fly as leisurely as they would had they been on the summer stand all winter, and mark their location as perfectly, so that we have no mixing of bees, etc.; while, had not the smoke been given they would have all piled out of the hive with a rush. This go-

ing out slowly is of great advantage to them in marking their location and repelling robbers.

As soon as set out, the next work is to see that all have plenty of stores; and if in a tight-bottomed hive, clean off the bottom-boards. As I use a loose bottom-board it is placed on the wheelbarrow to set the hive on, so I do not have to disturb the bees afterward on this account.

To find out about the honey or stores, the first cool morning go to the hive, take off the cover, and carefully raise the quilt or honey-board, and look for sealed honey along the top-bars of the frames. If plenty is seen they are all right till they are to be carefully looked after 3 weeks later. If little or none is seen, they must be fed; for, if we are to reap good results from our bees they must have plenty of stores at this time of the year to encourage brood-rearing.

For feeding at this time, I prefer combs of sealed honey set in next the cluster, to anything else; and it should be the duty of every apiarist to set apart combs from the extracting hives each year, which are filled with honey, sealed over, especially for this spring feeding. If none such can be had, we must feed sugar syrup, or liquid honey, if we have it; but the feeding of liquid sweets, thus early in the season, entices many bees out to perish in unfavorable weather, and tends to promote robbing, beyond anything else.

Three weeks later the hives are to be opened generally for the first time, the goodness of the queen looked after, and the amount of stores on hand, and to see that the brood-nest is located in the center of the hive. For years I have noticed that brood will not go forward nearly so rapidly where the brood-nest is located next to one side of the hive in early spring, for as the bees increase their brood, it seems natural for them to do this from either side alike, and where the first brood is reared but one or 2 combs away from one side of the hive, after a little they can only extend the brood in one way, on account of the other side of the brood-nest reaching the side of the hive. Where I find brood thus located at this time, I always set it over to the center of the hive, and whether I so find or not, I now place 2 combs which are the fullest of honey next each side of the brood-nest, one on either side, which helps brood-rearing along amazingly.

The great trouble in forcing early brood-rearing, so as to have it in time so that the maximum amount of brood shall be emerged into bees in time for

the harvest of honey from white clover, seems to be to get the bees to feed the queen prepared food in sufficient quantities so that she will lay prolifically quite early in the season; and the placing of combs of sealed honey next to the bees in this way causes them to remove the honey as brood-rearing goes on, and, in thus removing, more food is prepared than would otherwise be the case; and having the food prepared, the queen is liberally fed.

The scrimping of honey in any colony now, is to be "penny wise and pound foolish," for unless there is either plenty of honey in the hives, or plenty coming in from the fields, brood-rearing will go slowly, which means comparatively few bees in time for the harvest. I want as much as 20 pounds of honey to each colony at this time of the year, so that they will not scrimp in feeding the queen or the larvæ now.

As it is about 37 days between the time of the laying of the egg and the time the worker-bee goes out as a field-laborer, I try, if possible on account of weather, to have all the colonies fixed as above 6 weeks before the white clover opens enough for the bees to work on it to advantage.

As the colony increases in size, the entrance should be enlarged so that there is no crowding out of the bees, nor any great amount of fanning done at the entrance. In all of this work with the bees, it is well, each time a hive is opened, to see that it is closed as tightly as possible, so that no cracks are left to allow the wind to blow into the hive, or heat from the hive be carried out into the outer air. To be sure, the bees seem to be able to confine the most of the heat inside of the cluster, but, in a certain sense, the warmer the hive, the more brood there will be reared. The bees seem able to raise the temperature inside the cluster up to the breeding-point, which is about 95 degrees above zero, while that surrounding this cluster is only 40 to 50; but, as a rule, the higher the temperature on the outside of the cluster, the more brood will be reared inside the same. Therefore it is always well to lay emphasis on the matter of keeping the interior of the hive as warm as possible during the spring months.

Borodino, N. Y.

## Queen-Rearing and Nucleus Management

BY F. L. DAY.

On page 194 Dr. Miller and "Iowa" discuss my method of queen-rearing, as briefly mentioned on page 7. In justice to them as well as to myself, I will explain the matter more fully.

Dr. Miller suggests that my failure to secure laying queens in the 4 nuclei in question, was because of commencing too early in the season; but such was not the case, for I obtained a laying queen in each of the 4 nuclei from the first lot of cells given them. The trouble came later.

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The doctor also says in his answers to "Iowa's" questions that it would have been as well to have hung the West cell-protectors and spiral cages containing queen-cells between the brood-frames of any colony. Perhaps so with his bees, but not with mine, as I will show further on.

On May 29, 1906, colony No. 11 had a 2-story hive containing 20 good combs, 11 of which were well filled with worker-brood. On that date 3 frames of brood and bees, together with the queen, were taken out and placed in a new hive to form a nucleus for increase. The 8 frames of brood remaining and 2 frames of honey were then put in the lower story, and the upper story removed.

On June 7th, 6 frames of brood and bees were taken from No. 11 to form the 4 nuclei having only one frame each. To this one frame was added one comb of honey from No. 11, the same being well covered with bees. Each nucleus had several queen-cells now nearly ready to hatch. A laying queen was secured in each nucleus from these cells, 3 of them being excellent, the other worthless. The 3 good queens were taken away and used where needed, the poor one being killed. So far all right according to program, but these 3 laying queens were both the first and last, obtained for many weeks.

When I restocked the 4 nuclei with ripe queen-cells, I put one or 2 cells in the West protectors and spiral cages combined, in each nucleus. I put honey in the cup which fits in the lower end of the cage, so that the virgin queen could have it to eat in case the bees did not feed her. At first I put only liquid honey in the cup, and some of the queens went into it head first and drowned. Then I mixed a little comb with the liquid, which made it safe. Some of the virgins were left in the cages a number of days and consumed nearly all the honey. Now note the results.

If I secured a nice lot of virgins in a nucleus, then there was no laying queen to be found. On the other hand, if there was a laying queen, then the virgins in the cages were so neglected as to die or become chilled and worthless. It took me some time to understand this. I kept the nuclei all stocked with bees and got all the virgin queens from them that I needed. I am well aware that as a rule queens should be fertilized in nuclei, and then introduced to full colonies, but I did not have enough nuclei, and the virgins answered my purpose about as well. Most of them were given to full colonies from which the queens had been removed to prevent swarming. These colonies were filled to overflowing with bees, and had from 6 to 10 frames of brood to hatch. A caged virgin was given 8 to 10 days after removing the old queen. Two days later the virgin was released. By the time she got to laying the bees were over the swarming fever. In case the first virgin given was lost, no great harm was done, for the colony had bees enough to carry it through the honey season, which

usually ends here from the 1st to the 10th of August.

After robbing colony No. 11 so severely, it might be supposed it would not amount to much, but it built up strong and gave me about 60 pounds of surplus honey besides being heavy with stores for winter.

Detroit, Minn.

## No. 2—Things to Do, and Why

### Spring Management Continued—Getting Brood—Stimulative Feeding—Retarding Swarming—Making Nuclei

BY R. C. AIKIN.

In the last article I closed with the question of clipping, this work being done with the first spring work when bur-combs are being cut off and all made slick and so the combs can be easily and quickly handled. But as it is not necessary that queens be clipped until the swarming season is almost on, I never spend any great length of time hunting if a queen evades me; still, the longer it is delayed when the colony is getting strong the harder the job.

In order to get somewhat of an approximate date or time when things should be done, I will suppose the honey-flow when surplus and super-work is to begin, June 15th; each reader varying the times to suit location when applying the principles. And let me repeat that what I describe will be true of any location where the conditions are the same, but, if you have other factors, remember that just so surely as a mathematical problem is changed by bringing in a new factor or changing the relations of the same factors, so the change of order or number of factors with the bees will change results. The bee is not a reasoning creature as man, but follows instinct. The apiarist is ever a varying quantity—does things because of some whim or notion growing out of his reasoning faculties, and his action may be wise or otherwise—you do not not know where to find him; but the bee you know where to find, and what it will do, if you know its nature and can correctly reason and analyze the problem.

Throughout this spring management the object sought after is the largest possible force of workers. I know there will be a few who will take issue with me and say it is possible to get too many bees in a hive before the honey-flow arrives. Well, suppose we admit that in a given hive we may possibly get too many bees; the remedy is to use them elsewhere—there are always places where they can be added to strengthen weak colonies, or they may be made into new colonies, or in some way kept awaiting the flow. The cost of a bee is in its maturing or producing, and not in its maintenance after grown. For a June flow in temperate-zone latitudes you cannot possibly get too many workers produced prior to the flow, so get as many as possible.

The question of well-bred stock as

against poorly-bred, needs no argument; there is such a vast difference between a stunted, skim-milk calf and a new-milk, well-fed one; the same principle in horses, pigs, chickens and all our domestic stock. Same thing also of poorly-bred farm crops of all kinds, and just as true of bees. A stunted, skim-milk queen cannot be the equal of a well-nourished one, both in the making of the queen in the first place and in her care while in service of egg-laying. But if you have the poor ones in the spring you must put up with them until you can remedy the defect—make the best of all queens in preparing for the coming crop season.

#### HOW TO GET THE LARGEST AMOUNT OF BROOD.

I have previously spoken of the fact that queens will start brood in January, more in February, and all should have some brood by about March 1st in outdoor wintering, in latitudes of Denver, Omaha, St. Joseph, Mo., Chicago and Indianapolis. In the early spring, and until the colony can begin to cover several combs, not very much can be done except to have the colony as warm as possible, plenty of stores within easy reach, but yet as much empty comb close in about the brood as the queen may be induced to lay in. How much she lays depends upon her vigor as a well-bred, strong individual; upon whether she be in her natural, youthful vigor or failing with age, how well she is fed and coaxed as it were by the workers; upon the supply of pollen and nectar both in the hive and in the fields; and upon the bees' ability to forage and lead an active life. While the stores within the hive are good, yet they are not nearly so good as that which is being daily gathered from the fields.

I have seen many a colony with plenty of stores—yes, too much of them. Remember that brood is reared in combs where there is neither honey nor pollen, and when a colony has to uncap and move honey to give the queen room to breed, they are honey-bound. At times it is well, yes one of the *best possible* things to do to have them *move honey*; the more honey a colony handles, either strictly within the hive or from without, the more brood will be produced, provided the queen is allowed plenty of cells in the right place as fast as she can and will use them. Right temperature, new pollen and nectar coming in just fast enough so the colony never gets much ahead (say 2 or 3 days' supply), yet are kept busy all day and every day, is the ideal condition which will give the greatest amount of brood. Approach such condition as nearly as possible, and you will see much brood, which means much working force.

But some localities do not furnish nectar and pollen early, or continuously, when we want the best results in breeding, and we may stimulate by artificial means. Just how far what is known as stimulative feeding can be profitably used I am not prepared to say. This kind of feeding is to give a limited supply daily or each alternate day; but this takes considerable time and care, and

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what is called "fussing." I have many times fed, and that lavishly, in the open air, but I never tried daily feeding. The colony must have enough at all times, but better a limited amount than too much if the brood-chamber is small; with a large chamber, that will hold lots of stores and still give the queen ample brood-room, then much stores do no harm. I am an advocate of large brood-chambers.

### THE MANIPULATION OF STORES.

Your colony usually starts the brood-nest near the entrance. If the entrance be the sunny or warmest part of the hive the brood will almost certainly be there. Now if there be no nectar or pollen coming in sufficient to stimulate, it is best to cause the bees to handle honey within the hive; they ought to "get busy," for a busy colony is the one that "gets there" with breeding.

Open the hive, and you will find the brood in the front end of the combs, with usually honey, in the back end. If the colony has brood in say 2 combs, or even 3, and about as much brood as they can cover and care for, just reverse these combs, putting the honey forward; this does not spread brood but puts honey to the entrance, and they get busy moving the honey and will put it back from the entrance. The colony will also stretch toward the entrance, both to guard and in getting outside, yet they will not pull from the brood faster than they can do so safely, but as fast as more comb can be covered toward the entrance it will be done, and occupied with brood. The moving of that honey has caused better feeding of the queen, which means increased desire to lay; has also fed the nurses better, and results in better feeding of brood, and so makes a faster and healthier growth of the colony. The extra effort in moving the honey produces more heat, because of the activity. This, of course, causes the consumption of more stores, but the honey-returns later will pay, by far, better interest and profit than if you had kept the honey, or than to have sold it and put the money in the bank. Activity and good feeding are the foundation on which rapid breeding rests.

If my premises are correct in the foregoing, then it is most likely that stimulative feeding—that is, daily feeding by supplying feed from without—would not be profitable; but to cause the workers to load their sacs and handle stores is profitable; this latter I do unhesitatingly recommend, either by the method recommended above, or by uncapping stores making them run, or in some way cause the bees to load their sacs. Many say it damages a colony to manipulate, but I must differ, and say that proper manipulation is a benefit, for the very reason that it loads the bees, and the activity adds heat, and so aids.

So the foundation of success in brood-rearing is, first, strong, healthy queens, and such are obtained by breeding from colonies that show vigor, and the queens produced under conditions of proper heat, and well-fed and nourished in their developing. After this, proper heat and an active hustling,

working condition of the colony—not too much stores nor too little, but the bees must be handling supplies. This is practically all there is to do until the harvest season arrives.

If your location is one yielding nectar and pollen practically throughout the weeks preceding the harvest, and especially the short period just immediately preceding when the colonies have become quite populous; and if the amount of nectar coming in is sufficient to cause the filling of brood-combs at the ends and along the top-bars, together with outside combs, a condition favoring swarming is likely to prevail. Just at this period it is heat—a hive full of bees and great activity causing uncomfortable heat—nurses well fed, and feeding brood and queen well, the combs having few empty cells; with these factors you have swarm conditions, and many will get ready for the act.

### HOW TO RETARD SWARMING.

I have just spoken of the brood-combs getting just about full, so that the queen has limited laying room; and of the activity of the colony, and somewhat uncomfortable heat-conditions. Abundant ventilation given at this time will remove one disturbing factor, and will hold part of the colonies, but not all. Give a set of dry brood-combs underneath the old one, and in this one put a comb having a little brood in it—give this at or near the center. This is equivalent to ventilation, as it spreads the colony as two persons in a warm bed shifting to positions as far apart as possible, or taking separate beds in a hot night. It also gives both store and brood room, and will by all odds control in the great majority of cases. All this should be done *before* any queen-cells are started, yet, if cells are building, their removal with the changes indicated will, in most cases, relieve the bees of the swarming fever. But should the colony still show disposition to swarm, they should either be divided, by taking away some of the bees, or some of the brood, or both. The removed part may be taken clear away, and added to weak colonies, or made into new ones; or the queen may be put in that added chamber spoken of to go underneath with one comb of brood in it, and over this an excluder or a board with a hole in it, or a super between the two bodies; the idea is to make the brood-nest proper, which the queen now occupies, seem to be poor in both honey and brood, but *especially little brood*. If a board with a hole be used, the hole should be covered with excluding zinc. Also provide plenty of ventilation or shade so as not to "cook" the upper chamber in a hot sun. Remember, too, that drones may clog a small zinc; I recommend the use of regular wood-zinc slat honey-boards.

Keep these principles in mind and apply them, getting all the bees possible preceding the main harvest flow, and hold or keep these bees in some way as indicated herein, but get them if possible. And if you are so fortunate as to have conditions that will keep up the continued activity of the colony, and, above all, if you have them so that with

the arrival of the main flow you have the brood-combs just about full of brood and honey, you should be happy indeed. I do not have such conditions, but if I did I should rear early queens, and make small nuclei, and certainly strive to have a large number of nucleus colonies that would have young queens laying by the time the harvest flow came. *Such nuclei are the foundation for next year's business.* Yes, by all means get these early nuclei, if your location and conditions will at all favor such work; and even go to extra trouble to produce conditions that will enable you to get them. The *why* for this, and their value, will appear later. Let me repeat and emphasize that early nuclei, when we can have good, well-reared queens—I say *well-reared*—not bred—will prove one of your very best assets.

Loveland, Colo.

## Honey from European Foul-Broody Combs

BY D. J. WEST.

On page 133, Mr. J. L. Byer criticizes my article (page 47) on the use of formaldehyde on foul-broody combs, and thinks honey from such would be *nasty*.

When speaking of foul brood, I had reference to European foul brood, commonly known as "black brood." Honey from brood-combs where dead larvæ are dried to the cells is *nasty*, and I would not like even to taste of it. An apiarist who is so neglectful as to allow brood-combs reeking with filthy diseased larvæ to remain in his apiary will not be very successful in treating European foul brood.

My object in the article was to show that formaldehyde has been used successfully on European foul-broody combs. I have cured quite badly diseased combs under the treatment, but it does not give very good results on combs badly affected. I use only badly diseased combs to experiment with.

We go through each colony of our apiaries nearly every 9 days in the working season, and keep good watch for black brood, etc. If a colony is found with one to 10 cells of black brood, it is marked, and if on the next examination they are more badly affected, some kind of treatment is given. Weak, diseased colonies are not allowed to exist, and no combs with rotten brood dried to the cells are used for extracting-combs.

The brood of some strong colonies will become diseased and go down very fast, while other colonies with diseased brood will clean all traces of it. Taking the queen away for about 15 days, and then giving a virgin queen, will often prove a success. This gives the bees a chance to clean the cells of the diseased brood, and good brood will be reared in the same cells by the young queen.

I have 2 combs that were badly diseased, which were placed in the brood-nest of a strong, clean colony 5 years ago, were cleaned up by the bees, and no trace of black brood has been seen in them since.

My claims are that when the combs are stacked as stated in my first article,

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the bees clean out the brood that does not hatch—unless the colony is not strong enough or the combs are too badly affected—and make them clean for honey. In badly diseased combs the bees usually cover some of the dead larvæ with honey. This makes the honey nasty if extracted.

After the season is over and the honey has been extracted, the combs are put back on the same colony where they were first stacked, and left for the bees of that colony to clean up all the drippings of honey that remain in the combs. We are very careful to let no honey drip from these combs where bees of other colonies can get it. The bees of our apiaries never have access to those combs as they come from the extractor, nor to honey that in any way is liable to carry disease.

I have yet to find a treatment that will always be successful. Formaldehyde treatment has been quite successful with us in saving combs, but we use other treatments more, as we run our bees for comb honey, and prefer comb foundation instead of combs for new swarms, as they work in boxes more readily when put on foundation, and there is less danger of disease.

We produce about one ton of extracted honey per year, of which about  $\frac{3}{4}$  is taken from the unfinished sections and sold to our neighbors and private customers. We can not supply our home trade, and I don't think we have ever received a complaint about our honey.

Middleburg, N. Y.

### Construction and Manipulation of Hives

BY DR. G. BOHRER.

I kept bees in Indiana from 1863 to 1873, and during that time I had bees in 13 different styles of hive, that I can still recall. Among them was the square hanging frame—the Langstroth frame in shape, but hung with the long diameter of the frame perpendicular instead of hanging with the long diameter transversely, as it does in the Langstroth hive-body. The standard Langstroth hive was also among my lot, and mostly what I depended upon. The Quinby, or Jumbo, frame I regarded as equal to the Langstroth in every respect, except that the frames were deeper, and I thought slightly more troublesome to handle, especially at that time. The custom of wiring frames had not then been introduced to bee-keepers, hence these larger combs were more liable to break in handling.

I also had a shallow hive consisting of a bottom-board and frames made of a top-bar and a bar at each end; and, if memory serves me correctly, the ends and top-bars were close-fitting. There was no bottom-bar. A slot was cut in the sides of the top-bar to let the bees pass up into the surplus-honey receptacles. The depth of this frame was 5 1-2 or 6 inches. There was a box that telescoped over the frames, and rested on the bottom-board, with a cleated cover. I left this colony on the summer

stand to winter, and would have lost it had I not moved frames containing honey from the outsides of the hive up to the cluster, the bees having consumed about all the honey in the frames they occupied when severe cold weather came on, which being protracted, would not permit them either to shift quarters to full combs, nor to go after and carry honey to the cluster.

The above facts will point out to the beginner the danger attending the use of a shallow hive in outdoor wintering, especially in a country where very much zero weather is common. In a warm climate a shallow hive may be trusted in outdoor wintering. But there is one other difficulty attending the use of a shallow hive which, to me, seems insurmountable, in case we place a due estimate upon time. I refer to the matter of handling frames in extracting honey. Each frame must be handled separately; and, as I have shallow supers or extracting frames, standard Langstroth, and Jumbo frames, I have by actual test learned that I can not by any means possibly rid 2 shallow frames of bees, uncap, and extract honey from them as quickly as I can take one standard Langstroth or Jumbo frame through the same process. And as the use of the extractor will become more common, and especially so since the National Pure Food Law has gone into effect, this difference in the time required in handling the different depths of frames should not—and it seems, when viewed from a logical standpoint, can not, with consistency—be overlooked and ignored. For people are rapidly learning that glucose dare not be combined with honey, and labeled and sold for pure honey, and that honey in the extracted form renders it the most wholesome as food. The fact is also gaining ground that extracted honey can be produced in larger quantities and cheaper than comb honey.

I am aware of the fact that it is claimed that bees frequently become frost-bound, and perish of starvation with plenty of honey in the hive. This is true in either a deep or shallow hive. But in outdoor wintering it will occur much oftener in a shallow hive than in a deep one, for the reason that there is less honey in shallow frames than in deep ones, so that as bees go into winter quarters, in the front and lower part of the hive, they will reach the back part of the hive in less time (of course, consuming the honey as they move back) than they will in a deep hive of the Langstroth or Jumbo pattern. I am not unmindful of the fact that an expert can winter bees in almost any shaped hive, but for the beginner to adopt a shallow hive of any name or form is a mistake.

I was in Mr. Langstroth's apiary in 1864 and saw a ring suspended between the top and bottom bars, about 3-4 of an inch in diameter, which was to enable the bees to pass from one part of the hive to another during cold weather. In Indiana I have bored a hole in one side of the hive and with a warm iron rod sharpened at the point, passed it through all the combs, being careful to perform the operation quite slowly, and turning the rod as I would an

auger. Here in central Kansas I have a dry cellar, and put most of my bees away during the three winter months, and have never lost a colony. So I am not fully prepared to state in positive language how much merit to attach to the matter of having openings through the combs near the center as a means of enabling the bees to reach their stores during zero weather. But I am of the opinion that while it may, and no doubt does, afford a source of relief to an extent, it is not a positive guarantee of safety, and nothing short of a frost-proof depository is. And in the light of my present amount of experience and observation I can not say any more in favor of any other form of hive than the Jumbo and Langstroth.

I see that the sectional or transversely divisible hive is held in high esteem by J. E. Hand, of Ohio, and J. E. Chambers, of Texas. These gentlemen say in Gleanings that with this hive, enlarging or contracting the brood-nest, supplying the bees with honey, and finding queens and queen-cells, are much more expeditious than with the deeper frame, or Langstroth and Jumbo hives. Now, while a section of this hive containing honey or brood can be placed over another section requiring food or reinforcement, I am at a loss to know how these gentlemen manage to find a queen, or learn beyond doubt the presence or absence of queen-cells without ocular inspection of every part of every comb, whether deep or shallow; and how they can make an ocular inspection without handling each frame separately. All persons at all familiar with the habits of a queen know that, as a rule, to secrete and absent herself from view is one of her strongest instincts, and that one of the sections, being only from 5 to 6 inches deep, affords ample opportunity to carry out her inclination to absent herself from view, does not admit of a doubt. Hence there is a mistake about this part of their argument. I do not desire to place a wrong construction upon their language, and if I misinterpreted their teaching, I will gladly stand corrected.

But, again, such a hive I see by prices quoted costs more than either the Langstroth, the Quinby, or Jumbo hives. And while I shall not at once condemn this hive, being in favor of investigation and experiments carefully conducted, I will say that I was personally acquainted with Mr. Langstroth (the greatest inventor of them all), and also with Mr. Quinby, that staunch old veteran bee-keeper. I learned from them in personal conversation their reasons for constructing the brood-chamber of their hives as we see them. The difference between them is but little, while the success of all who have adopted them in the largest apiaries in the United States, and elsewhere among the nations of the earth, can not be called second to any. But instead, very many who began bee-keeping with both deeper and shallower hives than either of these old, reliable stand-bys, have endorsed their use and adopted either the Quinby or the Langstroth hive. In fact, all the 13 or more different hives that I have tested were claimed by

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their inventors to be superior to the Quinby and Langstroth patterns, but simply ran against a Gibraltar without having made any impression except to shrink the contents of the parties' purses who invested in these so-called improvements.

The greatest harm that has ever come to the Langstroth and Quinby hives has come through cutting good lumber into worthless fragments, and tacking them together as a part of a Langstroth or Quinby hive. The same is also true of hives frequently made of store-boxes and not put together in a workmanlike manner.

But one feature more about the sectional hive, which strikes me as a matter of doubtful propriety, is the top-bar of a frame in an under section, and the bottom-bar of the frame of an upper section, with the open space between them. All added together amount to nearly one bee-space between the combs of the upper and lower sections. That the queen will not ascend to the upper section as long as she can find

space below to lay eggs is a fact. And when she does finally go above in search of laying room, she will be very slow in returning to the section below. The truth about the matter is that a queen when left to be guided by her natural instincts prefers laying-space more than 5 or 6 inches deep, as is so often observed when she has long, deep combs at her disposal. In such cases she will invariably lay eggs in a circle, and go from one comb to another on either side from the comb in which she began laying; thus placing the developing brood in globe form, which is the best possible shape for a colony of bees to place themselves in, to economize the warmth they generate. This in a shallow sectional hive they can not do unless the bee-keeper is ever on the alert to supply an upper section, which the bees and queen will, through force of circumstances, enter. But on account of a bar below and one above, with a 5-16 space between, they will do so as a last resort, and do so reluctantly.

Lyons. Kans.

only when I find my bees getting down. In some apiaries it is necessary to introduce new blood every year, and in others it is not necessary; it is owing to the locality; it is owing to the kind of honey that is produced, whether extracted, or comb honey, and different things that come up in different apiaries; but it is quite necessary for any bee-keeper who is expecting to make a living to look to his queens and bees. When they begin to go down it is time to introduce a good strain of blood, but as long as they are up to the standard it is not necessary.

J. Q. Smith—Mr. President, the gentleman that has just spoken has voiced my sentiments. I don't think it is necessary to introduce new blood every year, you might do worse; but if you find that your queens have been superseded with inferior queens, then introduce new blood.

Dr. Bohrer—The introduction of new blood is that at some time or place degeneration will begin. Now, the question is, when does it begin? I believe that it begins first; that is, in breeding and requeening. I would suggest that good strains of bees be produced from good breeders, and by this means you will have good queens all the time. I sometimes get queens from Texas and other places, but keep them coming in from different directions. I have some queens that I want to get rid of, and I don't want the queen that stands a chance of producing a bad strain of bees.

Mr. Parsons—Those men who have just spoken have given me some idea as to the introduction of these queens, but I think that the person, who asked this question, asked it in the interest of the honey-producer, not from a honey standpoint. If your bees are not doing as well as you want them to; if they don't gather the honey that you think they ought to gather; if they are not as gentle; then I would say that it would be well to introduce new blood, but be sure that it is better than the one you have. It is a very easy matter to get something that is not so good as the ordinary; it will not do to depend upon getting a queen from an experienced and honest queen-breeder and breed from her and requeen your apiary. He may do all he can, but he has not had the time to test that queen to see if she is a good all-around queen; she may look all right, but she may be lacking in that point; so be sure that the queen you get is better than that which you have, else you may make your bees inferior.

Mr. Bergstrom—I think the question has been misunderstood. The question was this, Is it necessary to introduce new blood annually—every year? I don't think that there is anything exceeds the importance of introducing new blood occasionally, or only when it is needed.

On motion, the meeting adjourned to meet at 9 o'clock the next morning.

### SECOND DAY—FIRST SESSION.

The Meeting was called to order at 9:30 a. m. Nov. 9, 1906, by Pres. C. P. Dadant.



### Report of the 37th Annual Convention of the National Bee-Keepers' Association, held in San Antonio, Tex., Nov. 8-10, '06

(Continued from page 285)

#### NEW BLOOD OR NEW STRAIN.

"I hear our queen-breeders talk about new blood in bees. Do they mean new strains?"

Pres. Dadant—I think that can be answered by yes.

#### NEW BLOOD ANNUALLY.

"Is it necessary to introduce new blood annually?"

Mr. Hatch—I would like to speak a little on that point; it seems to me the honey-bee should be just as capable of improvement as any other stock, but as I know invariably we cannot always control them like other stock, so it takes a long time. Now in the matter of gentleness, I have handled them some, and I have proven that entirely to my own satisfaction, and I don't believe that anyone can contradict it, that too close breeding would give bad results, and I believe the same thing would hold in bees; and I believe, as I said, these things may be done on account of the bees mating in the air, not under the bee-keepers' control. I don't know whether I ought to say that it takes a good while to improve them, but I will say that I have better bees than I had several years ago.

Mr. Hilton—Now, is it necessary to introduce at all? But I believe I get

the best results by introducing a new strain annually. The gentleman last upon the floor has made the matter very plain, that it is best not to keep bees to close breeding. Then, if it be true, is it absolutely necessary that we introduce new strains annually?

Mr. Anderson—I am here for what information I can glean. I think this is a matter of importance, and I am not satisfied. Now, the question arises, if you have a strain of good bees, is it necessary to introduce new blood to that strain of bees? Now, there is the point I would like information on; I would like to hear from queen-breeders. Some say if you have got one stock of good bees, keep it pure, neither breed nor introduce another blood. Is it best to keep the strain of blood as you have it, if it is good, or is it better to cross it?

Mr. Victor—I think it necessary to introduce new blood in an apiary annually; it is necessary in a wild state. Bees in their wild state seldom swarm. I say that it is necessary to introduce new blood, even if it is from the same stock.

Mr. Chambers—According to my experience it is necessary to introduce new blood. You will always increase vitality by doing so.

E. J. Atchley—These questions come up at all our bee-meetings, and I think they should be argued very carefully as they come up. I think much depends upon whether it is necessary. If we are producing honey alone, and not breeding queens, I would introduce new blood

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Mr. Hilton—I move that the chair be authorized to appoint Committees.

Mr. Hatch—I second the motion.

The motion was unanimously carried, and a recess was given after which the following Committees were appointed:

## ON EXHIBITS.

Louis H. Scholl, New Braunfels, Texas.  
D. H. Cogshall, West Groton, N. Y.  
A. G. Anderson, Ferron, Utah.

## ON RESOLUTIONS.

R. A. Holekamp, St. Louis, Mo.  
J. A. Stone, Springfield, Ill.  
C. C. Parsons, Bluff Springs, Fla.

## ON AMENDMENTS.

J. Q. Smith, Lincoln, Ill.  
W. O. Victor, Hondo, Texas.  
W. H. Putnam, River Falls, Wis.

## ON QUESTION BOX.

C. A. Hatch, Richland Center, Wis.  
Geo. E. Hilton, Fremont, Mich.  
Fred W. Muth, Cincinnati, Ohio.

Pres. Dadant—The next subject was a paper by Mr. Townsend, of Michigan, on "The Production of Extracted Honey," and the Secretary being sick has upset the disposition of papers; and as the paper may be in the mail this morning, we will therefore take up the question-box at once, unless someone has something else to propose.

## CLARIFYING BEESWAX.

"How can beeswax be clarified?"

Dr. Bohrer—In order to determine what is used to get the wax clear, the best method of refining wax that I know of is that one used in the United States Depository. Go to your druggist and look up the refinement of beeswax; it is given in detail; the directions are there. I used to do it but I will not undertake to give it today.

Mr. Rouse—I think the easiest way to solve this question is for every bee-keeper to use a solar wax-extractor, and put the wax up in the best possible shape for the market.

Dr. Bohrer—Will it make it white?

Mr. Rouse—Yes, sir.

Mr. Kimmey—I simply wish to inquire the manner in which Mr. Rouse uses his extractor. I purchased one, but it does not work satisfactorily.

Mr. Rouse—Well, I cannot say that I have had a great deal of experience with it, but what experience I have had I will give. It is built on the Doolittle plan. I use it with a double glass as a reflector to put combs on, and I believe that the double glass over the top will produce more heat from the sun, and I have no trouble to get it hot enough, and I am sure it will make it hot enough; so you had better handle it with tongs, and it will make the wax white. When it is first rendered out it is a little yellow, but put it in the sun and it will soon be white.

Mr. Kimmey—This is what I have been trying to get at. I find after the wax is put in the extractor it does not melt; new combs are all right. At the bottom I find a lot of black specks and sediment. I want to find out if anyone had the experience of render-

ing it and getting it into a clarified or refined state—whether you can do it with the solar wax-extractor. I find more or less impurities at the bottom. I have been obliged to cut the bottom off of the cake. I am not giving information, I am asking for information. I would like to have the experience of others.

Mr. Parsons—I wish to give my experience. After the wax has been rendered and run through the extractor once, then fill the pan about half full of water, put the wax back into the extractor, run it through again, and you will not be troubled with that sediment in the bottom.

Mr. Hatch—What kind of an extractor were you speaking of?

Mr. Parsons—A solar extractor. There are a great many extractors. I get hold of a good deal of wax that has been almost spoiled in the rendering, and I find that I can get more of the impurities out by putting it in a large body of water and bringing it to the boiling point, and let it cool as slowly as possible.

Mr. Kimmey—Do you soak it?

Mr. Parsons—No, sir, by boiling it in the clear water, then take it out and boil it the second time in clear water; but I find that it is necessary in the use of the solar extractor to use some water in the pan.

Mr. Hatch—I would like to say a word on this. The first speaker suggested that boiling it in water would help to remove the impurities from the wax; but this will not do up in Wisconsin, at all; there was certain material that would run through the wax. My experience has been, the sooner the wax is taken off the fire after it is melted, the better. I never found any impurities I could not remove by the solar wax-extractor. One-fourth of an inch of water in the pan is sufficient, and I clean out the comb, but leave a little of that there; it will sift out a lot of dust and finer particles. This is a great help, and I say I have seen no wax but what the solar extractor would purify.

Mr. Stone—I have found that the best thing I can do is to place the wax in a deep vessel, and keep it hot as long as I can, or let it cool slowly, and more impurities will come out than in any other way; and the deeper the vessel the more dirt will settle to the bottom, and the more the wax is cleaned.

Mr. Cogshall—As I understand it now, the bee-keepers in our part of the country use oil of vitriol, of a certain per cent, but I don't know what per cent they use; that cleans the wax when it is heated up.

Pres. Dadant—I enter a protest against the use of oil of vitriol. It will not take out the impurities.

Dr. Bohrer—I wish to join the President in advising against the use of sulphuric acids or oil of vitriol, for the reason that it will burn the comb out and take the substance out of it to such an extent that the bees will not work upon it.

Mr. Cogshall—I have had no experience with it, but I understand they use it in small quantities.

Mr. Parsons—Let us hear from the President on this subject.

Pres. Dadant—I only wish to say a few words. I think the great point is the use of plenty of water. One of the gentlemen made the remark that his wax was spoiled by the water. He used hard water; take hard water in an iron kettle and your wax will be black. Use cistern water, and you will have much better results. Don't over-boil wax, let it cool slowly, and in that way you get good beeswax, and by having plenty of water the sediments will go to the bottom; but don't try the plan stated, of using oil of vitriol.

Mr. Bergstrom—I would like to ask a question in regard to melting the beeswax. Have you had any experience with the new extractor, and have you used it?

Pres. Dadant—No, I wish to say that in regard to the wax extractor, the one that I thought gave the best results was the one exhibited by Mr. Hershisser, of New York; but the German wax-press sold by the manufacturers is very good. Have your beeswax very hot, and press slowly; leave it on the fire, and keep pressing. I believe Mr. Hershisser's machine, if manufactured, would be very satisfactory.

Mr. Ripps—I had experience with the wax while using rainwater, and used apple vinegar instead of sulphuric acids. I used that, and it does pretty well.

Mr. Rouse—Is there enough in it, in clarifying the wax, to pay all bee-keepers to do that? The manufacturer of the comb foundation will always have it nice and clear, and I believe he can do it cheap enough; and in the remarks I made awhile ago I mentioned it in that direction, so I believe the solar wax-extractor will clean the wax out enough. That is what I had reference to. I don't believe it will pay individuals to go to so much trouble to get a purifier.

Mr. Johnson—I am one that is not entirely interested in bee-culture, in making money, but I have had some experience these 40 years, and I have found, in regard to the solar extractor—I use my cappings. I take the comb and boil it, and run it through some old gunny-sacks; then I have another vessel full of hot water, say a 6-gallon can, and put the wax into this, and I find when it is cool that I have nice, yellow wax. It gives satisfaction to those that I have sold it to.

## BEST SMOKER-FUEL.

"What is the best material for smoke to subdue bees?"

G. H. Adkins—I find that the best material for the smoker is the stems from a cigar factory.

Dr. Bohrer—The kind of bees has something to do with the case. With the Cyprians I would suggest sulphur in a mild form.

Mr. Werner—I use dry elm wood, hickory wood, or willow.

Mr. Parsons—I use titi, and find that very good.

Mr. Victor—In regard to the smoker-fuel I use, the most convenient thing is something that is always handy, that is, chips from the woodpile, and the Corneil smoker is what I prefer. With

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a few dry shavings, an old gunny-sack, and chips from the woodpile, it is good. It does not matter what kind of wood you use, but chips are as good as I have ever used.

Mr. Stone—I would like to ask Dr. Bohrer, as he suggested sulphur, if he would put it in his smoker. I want to say that some parties were repairing a church in our neighborhood; they found a swarm of bees in the roof, and they came to me to borrow my smoker to smoke the bees out. When they returned the smoker I could smell sulphur, and it did not last 3 months until it was worthless, and I could not use it; it was covered with little holes.

E. J. Atchley—The best material I use is dry moss, which is always at hand; it is in great abundance around our apiaries, and I have found it to work all right.

Pres. Dadant—You will have to ship it to us, because we don't have it up North.

Mr. Holekamp—It would not be necessary to ship moss from Texas. Old rags are plentiful, and the leaves in the fall are as good as moss; they are everywhere, and you don't have to go South for them.

Mr. Hilton—The smoker-fuel depends usually upon the locality. In some localities I can secure one thing, and in another I cannot secure it. In Michigan the best thing I find is rotten elm, that we find in the inner part of the elm tree, and I cut it up into chunks about 4 inches long, and then put in something that the bees don't object to, and that will not injure them in any way. Some of these things that have been talked about would be very objectionable, and I would have something to say to that, as well as the bees.

W. H. Laws—I wish to enter a protest against cigar-smoke; those that live with it under their noses think it is a good thing. I think what we need is something to frighten the bees—something that is not offensive, and will not anger them. We should give them a little that will not frighten but subdue them; that is all right; but this obnoxious smoke is injurious.

Mr. Jouno—I gather rotten wood, post-oak, live-oak, hickory; then I hammer this up and put into the smoker. I find this is a good smoke. I have tried tobacco and I find it does not do at all. I find that you will have to have something pleasant for the bees and pleasant to the breeder. I have tried chips and corn-cobs. As to sulphur, just give them a good charge of sulphur. I don't know about it rotting out the smoker, but it would certainly ruin the bees.

Mr. Hyde—I don't believe our bee-keepers know what is best. These Northern bee-keepers don't know anything about mesquite; they have none, but the best thing in the world to subdue bees is the smoke from rotten mesquite. We can pick it up anywhere; and you can break it up with the hands. Let it be rotten enough to break with the hands, and I think it is the best fuel. I have heard sawdust recommended; we don't have much of that down here. As one gentleman said, different localities have something to do with what

we use, but here in our country we don't find anything equal to rotten mesquite.

D. C. Milam—I have heard it said that the thing that is most convenient is the thing to use. I find the best smoker-fuel is cedar-bark; it is handy, and you carry it around with you; it makes a mild smoke; but there is one objection, it creates considerable creosote; but cedar bark is best I think.

### FREIGHT-RATES ON HONEY.

"Freight rates on comb-honey are too high. Is there any help from the National Bee-Keepers' Association?"

Pres. Dadant—We ought to hear first from the one who put the question. Let us hear from him.

Mr. Muth—I put that question. The classification of comb honey is not even considered by the freight officials on the railroads north of the Ohio River, which could be easily remedied if it would be taken up by the National Bee-Keepers' Association with the proper officials. For instance, the Western classification of freight on comb honey, (this applies west of the Mississippi River), reports a  $1\frac{1}{2}$  rate. West of the Mississippi Valley it is a  $1\frac{1}{2}$  rate. A  $1\frac{1}{2}$  rate means 90 cents or \$1.00 through Wisconsin down to Central Indiana, where it ought to be about fourth-class rate. It is classified  $1\frac{1}{2}$ , first-class,  $1\frac{1}{2}$  rate. We don't take care of the honey in shipping it; you can see it coming in boxes. The railroads don't even know what it is. Mr. France ought to be the man to answer this question better than I.

Mr. Holekamp—Would not the classification on extracted honey be fourth-class, when we get honey from East of the Mississippi River? North of that country is not in the Western classification, but the classification there is second-class. Now, I would think that it is worth while for this Association to take this up and have it uniform. While I can ship extracted honey from parts west of the Mississippi River at 26 cents, the same distance east of the Mississippi costs 56 cents. I have been taking this up with the freight agents at St. Louis, but they tell me this is to be taken up with the others.

Mr. Bacon—The railroads of the United States are divided into three classifications. West of the Mississippi River it is the Western Classification; east and north of the Ohio it is the Eastern Classification; and south and east it is the Southern Classification. Now, we are getting a cheap rate west of the Mississippi River; we are getting a cheap rate from the East, but we found that it cost over \$1.00 to ship into Alabama and Mississippi, where the rate to Havana, Cuba, was 59 cents from Watertown, Wis. It does no good to write letters to the railroad officials; we should send a representative to the different railroads which compose these Classification Committees; it is easy to turn a man down who writes letters, but it is harder to turn a man down who walks into your office in person. If you will send your representative to St. Louis, when the Southern Classification Committee meets, and also advise them in advance, they will hear you. Railroad men know very little about

honey, and I believe if the matter can be properly placed before the Classification Committees, a remedy will be granted.

Pres. Dadant—Can any of you suggest some other plan?

Mr. Boyden—I would not be able to tell you a better plan. I think the plan of Mr. Bacon is the only plan to go by. I know it does not do much good to write letters.

Pres. Dadant—Mr. Putnam is a great shipper, let us hear from him?

Mr. Putnam—I have had experience with railroads on getting rates for supplies. I had our samples of goods at St. Louis, and I set the case before the Western Classification Committee in Chicago; and I accomplished some good at that time, but I have noticed that there are other parts in the United States that are not heard by the Committee, and the rates are very much out of proportion. I think it would be well for the National to take this matter in hand.

Mr. France—If I remember rightly this Association passed resolutions to appoint a committee to go before the Classification Committee and lay this matter before them; but they only partially accomplished what they sought for. The freight-rate on extracted honey at that time had very little distinction as to the package, making the rate very high, no matter what the package was. We secured a rate which would include 65 cents, but on comb honey there had been so many damage claims put in against the railroads for breakage that they would not listen to a change. I do hope that some steps will be taken to take this matter up with the different companies of the Freight Classification. I went to Chicago and asked them to change the rate from 2d to 4th class. They seemed to hesitate, but when I presented the can, "Why, sure thing," they said; "that is entirely in wood." I did not want to change it, because the old square-top left it open so anyone could take out the honey, and then a claim was put in against us for the loss of honey. They gave me a copy of what would be instructions to the agents of the Western Classification Committee, so that honey was changed to 4th-class entirely encased in wood. I was afterwards informed that there have been many damage claims where honey was shipped in cases of two 5-gallon cans, and they changed the freight classification in Kentucky and Tennessee, and I was told also in Texas; that the boxes must be metal-bound, to keep the wood from pulling off.

Mr. Laws—This information came to us, and the cases are metal-bound.

J. F. Teel—We get the metal-bound, but they are not all metal-bound.

Mr. France—But I believe at present the freight is higher on comb honey than it ought to be. I think it would be well that this matter be in the form of a committee, and if that committee will go to work, and accomplish something, and let me know, as soon as any change is made, you will know it.

Mr. Rouse—I would like to know if there is any difference in classifying extracted honey, or should it be called

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"strained" honey? I have the idea that being called "extracted honey" makes it higher.

Mr. France—It does not. Some years ago I shipped a case to New York City, and in order to secure a 4th-class rate I had to bill it "syrup."

Dr. Bohrer—Are you not of the opinion that there is a body, if you make an appeal to, they will assist you?

Mr. France—Yes, sir; it would have been done long before now if some other little questions had not come up.

Mr. Kimmey—It seems to me that this is a matter which is not right; it is a wrong we have suffered because it has not been attended to. It seems to me that the General Manager is the man that ought to do it. A committee ought to be appointed to assist him, but we should furnish the General Manager with all the information we can give him. We ought to pass a resolution to act, and then we ought to make a resolution in some way to empower the General Manager. I move that this matter be referred to the Committee on Resolutions for action.

The motion was duly seconded and carried.

Dr. Bohrer—This same object I presented to the Convention in St. Louis, and it was adopted, and the aim of this resolution was the object of what we are taking a vote on now. It provided for a Legislative Committee to be appointed from each of the States, and they in turn to act through the Manager of this body, and ask for a change that might be necessary as to the transportation companies. It is said now, and it is a fact, I have no doubt of it at all, and we, as an organization, ought to look out for the matter at least, and in time. If we apply through the proper officials I believe we could get it. It is an easy thing to appoint a committee, but it is quite a different thing to get them to act.

Pres. Dadant—I believe the greatest trouble is, too many people are appointed on committees. If you have one man from each State you will probably hear from three or four states, and then the matter will drop. Get two or three men together and there will be more action. Now I want to hear other remarks.

Mr. Victor—It may not be in order, but I think there are other questions in regard to transportation that ought to come up before we settle this. For instance, I understand there is a question in regard to rates on bees, and on comb and extracted honey, and the rate on bees ought to be considered generally.

Pres. Dadant—This is a matter of importance. The Secretary will read another question on the matter of rates on bees, and we can include this before we dismiss the matter.

### FREIGHT RATES ON BEES.

"Freight rates on bees from Texas and other states are so very high. Is there any help from the National Bee-Keepers' Association?"

Mr. Bacon—The existing high freight-rates are due to the negligence of the majority of the honey-producers. These railroad men are not familiar with the

production of honey. The best thing is to get your statistics together and show them; get some samples of the shipments of honey from your different apiaries in Texas, and show them where it will be to their business interest to make the rates lower, so they will figure on this, and, consequently, the shipments will be larger, and this will put some more money into their pockets. These railroads are, as I said, divided into three classifications. First, I would suggest, take the Classification Committee that would cover the greatest movement of honey. First, I would say the Western Classification; and if you succeed, then go to the Southern and Eastern Classification, and state that you have got this from the Western; that will be very influential. If you will go before them in a business-like way, and put the matter before them, they will give you just as cheap rates as they can. I went down to St. Louis last year and got them to reduce the rates to the 6th, which got our rate down one-third, so that we can ship to-day into these Southern States for two-thirds of what we used to. I went down there with my boxes and samples, and I told them the amount of honey that had been shipped out of a certain place in Texas, and these men opened their eyes; and I told them what the honey industry was in the South, and they responded.

Mr. Stone—I believe in all of this discussion, that any committee that we will appoint along this line will do us no good until we begin at the other end, and we learn from our General Manager that the trouble was soon gotten over when they got to the 5-gallon cans in a case together, and then it had to be iron-bound, and they got their rates. Now, we will never get rates on comb honey until the bee-keepers begin to do their part. I know men shipping comb honey to customers 200 or 300 miles, and they just ship it in 12 or 24-pound cases with the glass exposed, and not put together; but you pack your cases in a good box, about as heavy as two men want to handle them, then lay handles clear across the sides; and if the bee-keepers will do this they will have no trouble in getting these rates; we will get them for the asking. This is my experience. I have heard railroad men say that men will break the glass and eat the honey, and we will have to pay for it. I believe the trouble all lies with the bee-keeper in the manner he ships his honey.

Mr. Anderson—You are getting pretty close to me now. Why are we members of the National Bee-Keepers' Association? We figure it like this: Because in unity we think there is strength. We think through the united efforts of the bee-keepers of the United States results can be accomplished for the good of the honey-producers of the United States. Now, for instance, Mr. Muth, I understand, says that the Lord gives help to those who help themselves. The good efforts of Mr. Toepperwein did not reach us all; we did not think that we would have to pay full fare to get down here, and when I asked for rates they said, "We have heard nothing from the National Bee-Keepers' Association." Now, then, we have a good

country in the North for producing honey, and there are good localities in the South for the bees, but when we have to pay \$450 to transport a car of bees there, we cannot afford to buy or sell them, when you can obtain a car to transport horses and other live stock for \$150. I know that through the united efforts of the Association, through the Manager, we can obtain better results. Now, I don't want to encourage all the bee-keepers in the South to ship their bees up North when there is a honey flow on, but we expect to buy from them. Now these rates can be obtained if some one—the leading officers of this Association—are empowered, and will go at it with energy. I think we should not rest until we get it.

Mr. Holekamp—The work which Mr. France did before the Western Classification Committee was satisfactory as far as extracted honey goes; but there are these different committees, because extracted honey bears the same identification all over the country, while the Western Classification is 4th and 2nd class; therefore it seems necessary that these different Classification Committees ought to be interviewed wherever their headquarters are, and it ought to be handled through their headquarters.

Mr. Victor—I had a little experience in shipping bees to Colorado. They charged me \$200 per car from Wharton, Tex., to Colorado; the distance we can travel in 36 hours on a passenger train. While we are paying two or three times as much as cattle, the cattle have more attention than the bees, unless we instruct that they be treated right. We only get one transportation while with cattle we get two. I wanted to experiment along the line and take care of some honey in the summer and ship them back in the winter and increase them, but the rates were so high I could not think of it at all. We Texas bee-keepers sometimes have a good many bees to spare; we can look ahead and see if our seasons are not going to be very good, and if the rates were not so high I think we could ship bees from Texas to other points to quite an advantage, and I believe if the railroad companies would take this matter under consideration it would be easy for them to see that by giving us a lower rate on bees, they would have more to handle, which would more than over-pay the difference on the present rate.

Pres. Dadant—We should go, ahead and try to get a better rate, as this matter is of great importance to us. We ought to have a committee all the time interviewing those Classification Committees, so as to get matters reduced; and I believe we ought to require this Association to name the men who are to serve on this Committee. I believe also that the Board of Directors will willingly grant the sufficient amount to pay for the expenses of the men who will interview those Associations. This matter is of importance to the bee-keepers.

J. Q. Smith—I think that that Committee ought to find out from the railroads what sized package would be acceptable to them, and have a satisfactory box, certain weight, and enclosed

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in a certain way, that would be acceptable to the railroad companies to handle. Now, in car-lots there is not so much danger, but in small packages is where the trouble comes in.

Mr. Kimmey—I wish to re-state that my motion was that this matter be referred to the Committee on Resolutions. This slip was handed to me; it reads, "Ship your honey in proper packages," and the man who handed it to me said, "I have handled it in small packages, and I have carried the package in my arms on account of the small packages getting broken." It is the duty of this committee to advise us what kind of package to use.

Pres. Dadant—It will save time to refer to the Committee on Resolutions, because they can discuss it and present it to us later.

The resolution was adopted.

### ADVERTISING TO SELL OR TO BUY HONEY.

"Which would be the better way to advertise honey, in a bee-paper that bee-keepers read, or in a public newspaper that thousands of people read?"

Mr. Werner—I asked that question. I have advertised honey for sale, in bee-papers, and not gotten as much as a postal card; and then I have advertised in the St. Louis Post-Dispatch and sold as much as 3,000 pounds of honey.

J. F. Teel—If I were going to try to buy a whole crop I might advertise in a bee-paper; but if I want to sell it out in local lots I prefer the newspaper. I have found the Dallas News to be the best medium to sell through, and I have sold something like 3,000 pounds from one advertisement.

Mr. York—I think it depends a great deal upon the class of people. If you want to sell to consumers, advertise in the newspapers; if to the dealers, advertise in the bee-papers.

### ANY PROGRESS IN NON-SWARMING BEES?

"Has there been any progress made in the past ten years towards securing a non-swarming strain of bees?"

Mr. Chambers—I believe from my experience that there has not been any success. For 4 years I have had no swarming in my apiaries. I have had no success as far as I know, and I don't believe that there has been a practical advance in that line.

O. P. Hyde—I don't think the nature of bees today is the same as it was a few years ago. I think the nature of swarming is just the same, and they are swarming just as they used to swarm, because of instinct; and, so far as any progress being made in the bee within the last ten years, none has been made. You will see this in advertising, "A non-swarming bee;" but I think the non-swarming bees and the breeding of the long-tongue bees—there is nothing in them; I think it is only a catch to make a profit and sell bees. I think the bee's tongue is as long as it was a thousand years ago, and they swarm under the same surroundings. Now, I don't know if I have had two swarms this year. It is the nature of bees to swarm; give them plenty of room. If you want your bees to swarm, put on a box of sections and have nothing

above and no foundation in the section, and your bees will swarm right away. Put on new supers, give them plenty of room, and see that they are off the ground.

Dr. Bohrer—Are there not some races of bees more inclined to swarm than others?

Mr. Hyde—Yes, sir; the Holyland bees are the hardest to control. I am glad you mentioned this. Another thing is to go through the hives and clip the queen-cells. I go through my hives once a week—just as soon as I think they are fixing to swarm; and then I go there and clip those cells; but the Holyland bee is the most prolific bee that we have in the South, and it is a bee that will breed up and make a strong colony quicker than any other race.

Mr. Victor—I cannot see why we cannot make selections in regard to the honey-gathering, color, or anything else. As for my part, with the same management I had a few years ago, I would not have over a fifth what I had when I commenced. I think the disposition of the bee can be selected in regard to swarming, and as to stinging; and I think the conditions under which we rear our queens have a good deal to do with the disposition of the queens. If we rear our queens under the swarming impulse, those queens will naturally want to swarm more than those that were not around the swarming bees; and I am satisfied, so far as I am individually concerned, that my bees will swarm fully 50 per cent less than they would six, eight and ten years ago.

### NON-SWARMING AND COMB-HONEY CONDITIONS.

"What is the best plan to keep bees in out-yards from swarming, when running for comb honey?"

Sec. York—Mr. Louis Scholl is asked to answer this question.

Mr. Scholl—I don't know whether I can answer that question, because I do not produce section honey as they do up North, and I always produce comb honey in connection with extracted honey.

E. J. Atchley—I have some experience along that line, producing comb honey in out-yards, and I have failed to prevent swarming, as a rule; but on general principles, the best plan under all circumstances is to try to have a virgin queen in each colony in the out-yard at the beginning of the honey-flow. In other words, I suppose that should mean apiaries where some one should be there daily, and our queen-breeders can nearly always have young queens maturing or hatching at any season of the year. I know but few instances where I had swarms in other sections on black comb where I had a virgin queen in that colony at the beginning of the honey-flow, and this is a pretty easy matter. Every man should study his honey-flow, and know just when it comes, and at the proper time arrange to have the queen in each colony.

Mr. Kimmey—Is the result accomplished by reason of the absence of the laying queen rather than the queen being a virgin?

Mr. Atchley—I like to have colonies that are queenless during a honey-flow. When we have a virgin queen in that colony it is supposed to be a colony that is well organized, and more bees can be supported from the brood, simply because there is less brood to care for and less pollen, and, consequently, the bees in the supers store more honey because they are in shape to do so.

Dr. Bohrer—My own personal experience is that during the swarming and honey-flow seasons, to give them plenty of room has something to do with it. I almost entirely use a two-story hive, and by extracting some of the honey above and using the queen-excluder; and if the queen is confined below, it seems to subdue the inclination to swarm.

Mr. Anderson—There is a matter in my mind that is very important, and now we are in the middle of our convention. It is going to trend towards decline from now on; members are going away because their tickets are exhausted, and they are needed at home, and we all have faith in the good judgment of our President in the appointment of committees. The question of freight-rates ought to come before the body from the Resolutions Committee this afternoon. Could the Committee prepare it this afternoon or this evening? We desire that no one leave until this is settled. Now, then, we produce bees and honey to sell, but the freight-rates are so high we cannot sell them. In the North there are as good members as there are here; they are not here because the tariff is too high. If they were here they would voice their sentiments as affecting the tariff. Now, then, we know that with this matter being put in the proper hands it is going to result in good.

Pres. Dadant—The Committee will make a report this afternoon in regard to the transportation question. Now, Mr. Adkins started to make a statement in regard to a personal matter, let us hear from him.

Mr. Adkins—I ask that we adjourn till 2 o'clock this afternoon.

The motion was seconded and carried.

### SECOND DAY—AFTERNOON SESSION.

The members were called to order by President Dadant, who said, "We are yet without the papers that were to be read, but some one has gone to the postoffice for them, so we will proceed with the questions until the papers come. The Secretary will read the next question."

### YOUNG QUEENS TO PREVENT SWARMING.

"Can I prevent swarming by the introduction of young queens?"

Dr. Bohrer—As no one seems to want to take the matter up, I will give my own observations. I have given a queenless colony a queen just before she was hatched, and was almost white, and sometimes they are well received, and I have never known them to swarm again. I don't know whether there would have been any difference if I had introduced a fertile queen. When I was a queen-breeder, the queens were almost white when they were first

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hatched out. Walking about among the bees in Kansas, I think year before last, I tried that sometimes and the bees would not take to the queens instantly, and would not accept them, but I did not try this year, and do not know how they would have received them; if it had been a fertile queen I don't know what the result would have been. I might say that the first time I ever saw this done was in the apiary of Mr. Langstroth, in Ohio, and when she came out she was not yet colored, and in a half or three-quarters of an hour she had begun to turn and seemed to be paying no attention. Mr. Langstroth said, as a rule, they were accepted when they first emerged. But as to a means of preventing swarming, I don't know.

Mr. France—That varies according to the latitude and condition of the season. If a honey-flow is coming in rapidly, and the swarming fever has already advanced, it is pretty hard to stop it. The time to check the swarming fever is before it has fully developed. I think a change would check it.

Mr. Hatch—I have tried almost every kind of method that has been suggested, and all the methods I could think of, and have always found fault with every one of them. One plan would weaken the colony so as to cut off the honey-flow, and another plan would weaken me so I was not fit to get the honey, and so I let the bees swarm. One plan is to put a queen-excluder above the colony, and put a hive on the lower box.

### PREVENTING HONEY-GRANULATION IN GLASS JARS.

"How can extracted honey be prevented from granulating after being put in air-tight glass jars?"

Mr. Holekamp—There is being put on the market honey from California that is claimed doesn't granulate. Now, our honey granulates, but there is a way of preventing this granulation, because this California honey doesn't granulate. I would like to know if there is any way of preventing granulation without adulterating honey, without changing the character of the honey?

J. F. Teel—I was brought up in Alabama, and in that country there is a grade of honey that never granulates. It is also true in Mississippi. While it is not a real, first-class grade of honey, it is fairly good, and people prefer it, who are accustomed to it, and prefer it to real white honey; but there is a honey that is pure that doesn't granulate.

Mr. France—I will say that of some 60 kinds of honey over the States I have been learning something. I find that the honey from the North has a tendency to granulate much earlier than that in the Southern States, as a general rule, so I believe there is something in the latitude. The flowers and the locality have something to do with the granulation.

Mr. Rouse—My experience is that extracted honey, well ripened, will not granulate. I have had it in an open room, that is, the shop or factory where I work, and I have kept it there all winter and it has never granulated at

all. It was well ripened when it was extracted. Sometimes it granulates and sometimes it doesn't, but I cannot tell you why. I think there is an element in the honey or in the weather, or something.

Dr. Bohrer—I think the kind of honey has something to do with it. In Central Kansas alfalfa honey will granulate sooner than any other honey. I don't eat anything sweet at the table except honey, but at home I drink hot water, and I season it to taste with alfalfa honey. My folks have a large bottle with a glass stopper, in which they prepare this honey, but I have to superintend it and put it in warm water every two, three or four weeks, so it will not granulate. Now, I have no other distinct and superior variety of honey that I am able to speak of. The fruit blooms are consumed during the breeding season, preparatory to the main honey flow. The kind of honey has something to do with the granulation, and I don't know of any preventive, except warming it in warm water about half an hour.

Mr. Hyde—I have had a little experience with it. I find that there are two conditions that will granulate our honey; that is, the coming of the cold weather will always granulate all of our Texas honey; but we have a honey here we call the "catclaw," and we sometimes get what we call a crop of 30, 40, to 50 pounds to a colony and this will granulate in July or August. We always harvest it before the first day of May, and it will granulate when the thermometer stands at 90 or 100 degrees. Our catclaw or mesquite honey will not granulate until the coming of cold weather; so the cold weather has something to do with it, I think; but the source from which it is gathered has more to do with it. I had a vial of honey shipped from Cuba, from one of our Texas bee-keepers, W. W. Sommers. I kept that honey for two years and it never granulated, and the same can be said of the California honey; it will not granulate under two years. The granulation is caused from the source from where it is gathered. Is there anyone here who knows what the honey is gathered from in California? I would like to hear.

Dr. Treon—With reference to the granulation of honey, I want to give the bee-keepers my experience, while I have not been in the business over four or five years. I had an early crop of honey that comes from the catclaw; this is our first surplus crop, and some of this granulated before it was all seasoned. I don't know of any other honey that granulates as quickly as our catclaw honey. As Mr. Hyde just said, I saw some that was brought from California, gathered from sage-brush, and it had been in a bottle and was as clear as I ever saw. I saw it in Hot Springs Ark., about a year ago. Now in reference to our other honey, the mesquite honey is a little slow to granulate, but as Mr. Hyde said, it will granulate on the coming of cold weather. Horse-mint honey will even granulate in hot weather.

Mr. Laws—My experience is that all early honey will granulate much quicker

than the honey produced in the Fall. Our catclaw and waheah will granulate sooner. I pack the comb in 5-gallon cans, and unless I sell it soon it will granulate. Our fall honey does not do this. Our honey that is gathered in rainy or moist seasons granulates slowly.

Mr. Teel—I went over into Uvalde one day, and slept that night under a catclaw tree. The next morning, when I woke, the first thing I noticed the bees were gathering honey from this brush. By 12 o'clock the temperature was warm and the honey was candied. It candies every 24 hours in August over there.

J. M. Hagood—I think sudden changes of the weather are the causes. If we all had cellars to store our honey in, I don't believe we would be bothered with granulation so soon.

Pres. Dadant—I personally have no objection to this. My experience is that early honey granulates before the fall honey is gathered; it is something in the time in which it is gathered, or the quality.

J. A. Stone—I want to offer an objection to the cellar; it will cause fermentation of the honey. If you had a furnace it will keep it all right; you want a warm place.

Mr. Teel—The cellar won't work in the South.

D. C. Milam—I wish to say from experience, that the waheah granulates quicker than the catclaw. I have extracted honey in the evening and next morning it would be granulated. Catclaw blooms in May, and its honey hardly ever granulates until some time afterwards. In regard to fall honey, I have also extracted fall honey from broomweed, and the next morning it would be granulated, and would not run; so the fall and spring honey granulates alike; but in warm weather it will not granulate as quickly as it does in the fall.

Pres. Dadant—In our climate the early honey granulates and the fall honey remains liquid.

Mr. Jones—I am from Uvalde County, Texas, and I agree with Mr. Milam. Our waheah honey granulates much quicker than catclaw. Now, our fall honey granulates very quickly, and is thick. This is my experience.

Dr. Bohrer—What do you do to turn it?

Mr. Jones—Nothing, only to heat it. As this man stated awhile ago about unripe honey, it granulates on the bottom, but it never granulates on the top; you will always find the granulation at the bottom.

Mr. Parsons—We produce very little extracted honey, but we pack our honey somewhat like the Texas bee-keepers, that is, a portion of it, that which will not injure the comb honey that will do to case, and ship it. We put that into tin boxes and extract a portion of it. I first fill the vessel full of the comb, then pour around it the extracted honey, and where I can put that honey into the cans and seal them as soon as it comes off the hives it does not granulate until the next year, probably late in the spring or the summer. If I wait until cold weather comes, along at this

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season of the year, to put it up, then by next spring it is almost a solid granulation; and it does not granulate that year if I pay proper attention to it, and by proper attention I mean keep it dry. I do that by building charcoal fires in my honey-room at intervals, owing to the state of the weather. If the weather should be damp and foggy I then go to the honey-house, build up a fire and keep it there until the house is dried out; but if, from any cause, I neglect it, then it granulates in the comb, and I think probably that would help out in almost every instance. If you will keep the temperature from getting down too low, or getting damp, it will do away with a good deal of the granulation.

Dr. Treon—I want to ask a little information and at the same time make some statements. The way I put up honey in this part of Texas, to prevent granulation of our catclaw honey, which is our first crop, I heat my extractor. We produce chunk honey; we fill the can partially full of comb honey; then pour in the extracted honey, then fill the can clear full. We cannot fill it full of chunk honey. With reference to granulation, I have had catclaw honey that will granulate in the spring and stay that way all the fall. What I wanted to ask was this: About 3 years ago we had a good honey-flow in this country—the majority of it was horsemint honey; we had lots of rain. This honey was sealed up and underwent a fermenting process, and the seals burst. I would like some one to explain this. In two or three weeks the honey would sour in the can.

Mr. Hyde—I didn't make myself quite plain when talking awhile ago. I never designated the different kinds of honey. Our chunk honey will granulate just as quickly as pure extracted honey, but our one-pound section honey will not granulate during the first winter.

Pres. Dadant—Now, we will come to the question of fermenting and the bursting of the caps. I have seen that quite often, which usually occurs with unripe honey; that is, honey that is not matured when capped, and it will ferment and burst the cappings; this is the case with basswood honey, but with no other kind.

Will Atchley—I have had some experience with the honey, and it has mostly been horsemint. I tried some experiments with it and was successful. Before it was sealed up, I carried it almost to a boiling point. The comb honey, I simply stacked it on. You take thin honey that is fermenting and it will improve from heating.

W. H. Laws—The case with this horsemint honey, if left with weak colonies, in my case, when it was placed over weak colonies for sealing and curing them, it failed to do it. I have seen this honey almost boiling out of the cells.

J. A. Stone—I have had honey that was fermented until it was not eatable, not marketable at all, and by heating it I could cure it entirely, and I do not heat it to the point of boiling.

Mr. Teel—I have had a good deal of experience where it was newly sealed, but I believe that it was caused

from combs that had got a little moisture in them, a little wetting in the fall before, and the sour, vinegar-like substance would settle in the spring, which caused the fermentation. The best thing, is to do away with the combs when they get in that shape.

Mr. Jones—I have had some trouble along that line. Maybe it would be in a low place and a wet season, so I attribute it to the moisture that rose from the ground; that the combs absorbed this, and caused them to break. I have seen it in one-story hives often, and where the ground was damp all the caps would swell; but I have never noticed it where I had bottom-boards.

### SWEET CLOVER SEED.

"Where can I get sweet clover seed that will grow?"

Mr. Stone—I think Mr. Holekamp can tell us.

A Member—I just want to say that I bought some sweet clover seed from an Ohio firm, I think about three years ago, and tried it for two years and never got it up at all. The last year I soaked the seed 24 hours, and planted it and it is up, and the clover is growing nicely now.

Mr. Holekamp—Two years ago I bought 100 pounds of sweet clover seed, I do not know who sowed it, but I understand that wherever these men have taken their Sunday afternoon walks that the clover grew all around there, and it must grow there else they would not say that. I don't say that they scattered it!

Mr. Kimmey—It is impossible for me to understand sweet clover not growing. I can not conceive how anybody can not make it grow, except people who don't want it; it grows like a weed. It has just occurred to me that sweet clover ought to be sowed in the fall.

Dr. Bohrer—The question with us is how to keep it from growing. I came very near taking up 100 plants and giving to the bee-keepers; it will grow, and can be transplanted the same as cabbage plants; then take the plants up, set them out where you want them to grow and you will never have any trouble. If you allow the seed to get musty then it won't grow; and I want to say that if any bee-keeper will send me one cent a plant, I will put up a plant and send to him this fall or next spring.

Mr. Stone—In Illinois, one of the professors at the University has discovered that there is a bacterium that is always on the root of the sweet clover. If they can get these bacteria, they say it will grow anywhere. They are advised by the professor to scrape up the dirt where sweet clover has grown, and sow it with the seed.

Dr. Treon—Most of these gentlemen who have been talking about sweet clover happen to live some place where it is raised. We people in this country have such long drouths that it has been impossible to plant it without irrigation, and even the alfalfa does not grow where it is irrigated. It may be due to the lack of bacteria. Now, I have what looks just like a tobacco leaf, and we are calling it clover. That is the only form of clover in this country, and it

grows wild. I have seen sweet, red and white clover, but I never saw anything like that, and the bees gather lots of honey from it. There is very little of it in this country. If we can make sweet clover grow here, this will be an ideal bee country.

The Secretary then read the following paper by Mr. E. D. Townsend, of Remus, Michigan:

### THE PROFITABLE PRODUCTION OF EXTRACTED HONEY

In assigning me this topic, I do not suppose our Secretary had in mind that I would say very much new or startling on this old, worn subject, but we all know that there are probably no two extracted-honey producers who follow the same, identical procedure clear through the season in producing a crop of honey. Admitting this to be a fact, it is evident that we are not all producing extracted honey to the very best advantage, which means at a less profit. Of course, the location, the environment of the bee-keeper, the number of bees one expects to handle—all have a bearing when discussing this subject.

Just a word about hives, then I will be ready to take up the main subject. We have had extensive experience with 10 and 13 frame Gallup, 8 and 10 frame Quinbys, and 8, 10 and 12 frame Langstroth hives. During the whole 30 years we have kept bees, many times the different sizes and styles were in the same yards, so comparison of the different styles and sizes were easily kept track of. The results are the two extremes; that is, the small 10-frame Gallup and the large 10-frame Quinby almost always showed up *poorest* at extracting time, and, on the other hand, those in the 13-frame Gallup and 10-frame Langstroth usually showed up *best*, with the 8 and 12 frame Langstroth and 8-frame Quinby a close second.

After this long comparison, covering several years each, many of the comparisons being with large numbers of colonies, I do not hesitate to say that for this location and my management, there is no size of hive that will produce more extracted honey, one year with another, than the 10-frame Langstroth.

Then, our preference is for a 10-frame body, using 8 of the regular Langstroth frames for our extracting upper-stories. This size and style of hive, and upper-story, suit us best, for our system of management, which I am about to describe.

The system we practice and recommend for this location (northern Michigan) for the profitable production of extracted honey is as follows:

At the close of the season (during August in Kalkaska Co., and September here at Remus), our colonies are all "hefted," and any we think have less than 25 pounds of stores for winter are fed up to 30 pounds. This gives us from 25 to 30 pounds of winter stores per colony—ample to last until the surplus season opens in June.

Our chaff-hive colonies are packed for winter about Oct. 1; those in clamps the last of November. The latter are set on the summer stands as soon in spring as the frost is out of the ground, usually the last week of March. These

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are wrapped in building-paper for spring protection.

There is nothing more done with either paper-protected or chaff-packed colonies until May 20 to 25, when the paper is removed from the clamp-wintered bees, and the chaff removed from the chaff-packed colonies, and upper-stories are given to all the medium and strong colonies. Those familiar with this locality, will recognize this date as being about two weeks previous to the opening of the main honey-flow in June. At this date our freezing nights are usually over, and our colonies are getting strong, although there is no honey coming in during this period. Were we to leave our bees in one single story, many of them would feel crowded, and swarm at the opening of our main honey-flow. Others that did not swarm would sulk, and likely store only a part as much honey as if they had been supplied with an abundance of empty comb-room during this period. This abundance of comb-room keeps the bees in that condition so essential for the best results in honey-production. The old way was to tear down the strong colonies to build up the weak. While the results will be about the same, this handling of brood-frames is neither practical nor profitable in extensive bee-keeping. One visit a week during the honey-flow, to give comb-room to store honey in, is all that is necessary, and as we have comb-storage to hold our crop, and do not extract until a week or 10 days after our white honey crop is over, one man can attend to four or five established yards of 100 colonies each, and do all the work until extracting time, when additional help is employed.

With this system, no queen-excluders are used. Put upper stories on top. While the queen will occupy the first upper story given, by adding additional upper stories on top, she will be crowded down into the hive below long before extracting time; while if this first upper story given, now containing brood, were to be lifted up and empty combs placed between, and were to continue this practice of placing our empty upper stories next to the hive, we would be quite likely to have the whole brood-nest in the upper stories at extracting time. But by placing the upper stories always on top, without extracting, we have been able to keep down swarming, and have an extracting department practically free from brood at extracting time. We have used queen-excluders extensively for several years, and find that about every third year we have excessive swarming when excluders are used; and as we get practically the same results without them, with the above management, we are discontinuing their use.

Each yard is provided with a 12 x 16 foot sectional honey-house, with all the necessary paraphernalia for managing them, so there is no moving of tools from place to place. This makes it possible to run one or more crews at extracting time as occasion demands.

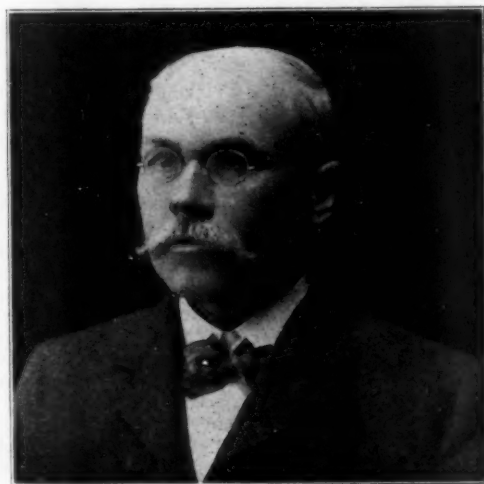
Keep piling on empty combs clear through the season, being careful towards the close not to give unnecessary room, or, in other words, get every upper story sealed and finished that is

possible, as sealed honey is of a much better grade than unsealed, even when left on the hives several days after the season closes, as is our practice.

A week or 10 days after the season closes—usually the last week in July in this locality—we begin extracting. As we have added all our upper stories on top, all our partly full upper stories will be on top at extracting time. These partly full upper stories are all taken off, and extracted separately, and the honey is sold at a less price than our best grade. This second-grade honey is as good as, or better than, most of the extracted on the market.

With this method we get about  $\frac{1}{4}$  of our crop in No. 2 stock. The No. 1 stock

not tried them, still I don't see anything hurt. The hives are heavier this year than usual. Now, I am from St. Louis, and a good many people think I cannot get any good honey. Two years ago I had about 200 colonies of bees, and I extracted from them about 8,000 pounds of honey and left 10 or 12 pounds, for spring feed. This year I have about 110 colonies and got about 4,000 pounds of honey. I put on supers as soon as I think my bees will need them, usually about May 20, and as soon as I think the first supers are about half filled I put another underneath. This year our bees worked all summer. I have some colonies which stored from 100 to 150 pounds of extracted honey,



E. D. TOWNSEND.

is put into new 60-pound cans, and brings about 2 cents a pound above the market price, with more customers than I can supply.

In conclusion, I would say: • Don't do unnecessary work with the bees. Don't do work that the bees can do just as well as you can. Don't handle brood-frames. Produce a superior article of honey, then ask a good, fair price for your product.

This is an outline of the way we are managing in the profitable production of extracted honey.

E. D. TOWNSEND.

Mr. Holekamp—I use the 10-frame hives, and if I don't use queen-excluders my queens will go up all through the hives; besides that, it makes my honey dark. I get a much better grade of honey than I used to get. The honey is clear, and it is easy to do the work, especially when fall comes I do not have to put the frames of brood down; the brood-chamber is in good condition. I raise the front of my hives about one inch, which I believe assists the bees in coming into the hives, at least I find that since I raised the hives that my bees work quicker, I mean they fly into the hives without crawling on the entrance floor. There is only one objection, and that is, a person waits too long without taking it out; but we had an early cold spell this year and I have

while the weaker colonies did not do well. A good many colonies were wild bees, which accounts for the fact of the small crop. If the bees had been kept in a fair condition I believe we would have had a better yield. We have a good deal of sweet clover which helps our honey crop. Comb honey is an entire failure with me.

Dr. Bohrer—Do you get ready sale for the extracted honey there?

Mr. Holekamp—Yes, sir.

Dr. Bohrer—I think it is known by a number of members that I am engaged almost entirely in the production of extracted honey, for several reasons. I believe it to be the most profitable method of managing an apiary where I live, and it is certainly the most wholesome form to be taken into the human stomach. And I think it saves the bees very much time and labor. A great difficulty is taking care of combs, and it requires some care. As to the manner of manipulating the frames during a honey-flow, I use the queen-excluder in order to keep the queens from going above. And I empty the honey out above and put down below for the queen to fill again, and it is the most profitable manner for me. The people are acquainted with me all over the country, and outside of it, and I find no trouble in selling my honey. I don't sell to the merchants, because they want me to take goods in exchange alto-

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gether, and I don't live on goods altogether. I put my honey up in 5 and 10 quart vessels, and a great many people will buy a quart or a pint when they use it. But taking it all in all I find it to be the most satisfactory and the easiest manner of managing an apiary. I am not in love with putting sections together.

Mr. Kimmey—The gentleman has stated that the greatest difficulty he has found is in preserving the combs for future use. For myself, I would like to know how he overcomes it?

Dr. Bohrer—I have a house that is closed with ordinary doors, and hang the frames away there. I take the empty hive-bodies and put the frames in them and store them away, and then put them away as near dry as possible, and I don't have a great many millers, yet I have some; they will get in there occasionally.

Mr. Kimmey—Do you cover those hives at the bottom or top?

Dr. Bohrer—I set the hives down on a plain board, and I don't see how anything can get under them, and the hives weight each other down; then put a cover on and put a weight on them. This is as near as I know how to get at it.

Mr. Stone—I would like to have the author of that paper here, so that I could quiz him. I don't see how he keeps the bee-bread out of the upper stories.

M. E. Darby—I will answer this gentleman's question. I just extract my honey and then put the frames right back into the supers, and when the season comes the frames are all dry, all the honey cleaned up, then I take the supers off. I have a honey-house and I have never yet had a moth to get into any of my frames. I live near Springfield, Mo.

Mr. Cook—I first store the hives and empty frames, one on top of the other, but first making it so tight below that nothing could get in there at all. Then I put bi-sulphide in that.

Mr. Hyde—Some are discussing the moth-worms and combs; it seems to me that the subject was the production of extracted honey.

Pres. Dadant—It is the profitable production of extracted honey.

Dr. Bohrer—Mr. Townsend is all right. Now, in our locality that is all right, but he is not all right on the way we do up in this country. My plan is to put the empty frames next to the brood-nest. They will work those empty combs much quicker than above. I also agree with Mr. Townsend as to the queen-excluder, but I said it does not make any difference if we run for extracted honey; we are not going to eat it, and it does not matter about the pollen that goes up there. After I get disgusted with them I call them "honey-excluders," for they certainly will exclude the honey, and exclude the queen, so she cannot lay. Now, that gentleman over there, I agree with him about the size of the hive, a 10-frame hive. I have said why I did not like the excluder, and, as I stated before, I don't care anything about the pollen, because it is not in the way; and if the queen lays up there, she will lay up there an-

nually and go down. And by the time you go to extracting again all the brood will be hatched out, and I don't care if I leave two or three combs in the second-story when I extract the first time.

Mr. Holekamp—I would like to speak about the moths eating the comb. Whenever I have comb without any pollen I have no moths; when I have pollen in the combs I have the moth. Then the second thing, I can taste the honey that comes from the pollen. I don't know how pollen tastes in your country, but it tastes very unpleasant in my country; it has a peculiar taste that I don't want.

Mr. Hilton—May I say a word in regard to the writer of this paper? I did not hear the paper read, but I live less than 50 miles from him, and there are a great many things that I know about Mr. Townsend and his methods, and there are a great many things that I don't know about him and his methods. This I do know, that he is one of the most successful bee-keepers in the State of Michigan; that he can produce the most honey with the least expense, and can run the most yards with the least men. He is a man that would not follow the occupation unless it was successful, and he is successful as to the manner and the matter of the queen-boards. I am not in a position to say why he does some of these things, but I am able to say that he does the things that are successful to him and his efforts. Consequently, he is right, no matter whether it would work in Texas, or Arizona, or any other State in the Union; but in Michigan it is a success.

Dr. Treon—I want to say something in reference to the method of keeping empty combs; that is one of the serious objections to Southwest Texas in producing extracted honey, in my observation. I take a bottom-board first and put it down; then put two sheets of paper on that, then I set the body with combs on it, and between each body put two newspapers. When I take my supers out in the out-yards, put foundation in them, stack them up and set them on a cover, there are no moths there, and they fit pretty well, and I have a number of times found those frames full of webs, that are made by small worms; they got in there and laid their eggs. The only way that I know to keep the combs is to fumigate them with sulphur, or bi-sulphide of carbon. And if there is the least bit of pollen in them, there will be no bees to protect the comb, and the web-worms will be in there in 48 hours. We cannot produce extracted honey as well as you people that are farther north, because we cannot carry over the combs. We cannot use the extractors as you do, for the reason that our bees swarm awfully, and it makes no difference if you shake them or draw brood from them, they will swarm anyhow, and some have swarmed in a day or two after I had drawn two or three frames of brood.

Mr. Parsons—While we are not producing extracted honey at present, I think I will tell you what we did in Florida. At each out-yard we have a bee-house. When the combs were taken

off they were carried off into the woods where the bees took all the honey out of them, and then were carried back to the house. The room was built 8 or 10 feet wide and across the side we put small sticks, say one or two, that extended from one side of the house to the other, enough to take our frames, and they were far enough below so the combs could hang in there. We put in other sticks until we got all the comb in the house. Then every few weeks we opened those sticks and burned sufficient sulphur to kill the larvæ that were there, and the fumes of the sulphur being so strong in there the moths were not very anxious to get in. In that way we never lost any combs. We have some trouble now in taking out the hives that are necessary to keep. We have houses built the same way, and there is no danger.

Mr. Hatch—I lost combs the past summer by the moths, and I was talking to a neighbor bee-keeper who said, "I see you are a fool, and you are as I used to be. If you will take these moth-balls and put among your hives, they will keep them out all summer long." I said, "Have you tried it?" and he replied, "Yes, I have tried it for 6 years."

Mr. Aten—in answer to Mr. Treon, in trying to cut off the moth, I have had considerable experience. I will say that it is impossible, I have taken combs and sealed them up in air-tight jars, and the moth would eat them up. The moth-eggs were laid in the colony of bees, and if you don't fumigate them they will eat the combs up. Fumigation by sulphur is a success with me.

T. P. Robinson—I am a honey-producer exclusively, that is, I produce something like 16,000 pounds of comb-honey, and there were only six or seven cases of extracted honey. In the production of extracted honey I tried to keep my colonies built up very strong. If the combs are too heavy to extract I move them to the super where the bees will hatch out, and the bees will fill them up, and I extract again. This year I extracted from the brood-chambers, and did not leave any honey at all. The bees did all right; in a few days they had filled the combs again. For the last ten years I have had no damage. But as far as the moths eating the combs, Mr. Aten is correct.

E. J. Atchley—I have had some experience in producing extracted and comb honey, and I think the locality has something to do with it. If I lived in Mr. Townsend's neighborhood, I would hardly take time to eat and sleep, or drink, until I found out from him his management for the production of extracted honey, and I believe that if Mr. Townsend were in my locality he would have to change his plans to be as successful in Southwest Texas as in Michigan. Therefore we should run our bees to the best advantage according to our own judgment, and a little brood in the upper stories, or anywhere else in a hive should not bother us. It seems that the pollen packed in the combs can be taken out almost any time. And another thing in the production of extracted honey, my plan would be what is known as the "Dadant Plan." And as to keeping combs from moths, I

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think that every practical bee-keeper will keep the moths out of his combs. There are several ways. You can wash the extractor, and you can stack them up on the hives. I have three or four supers stacked on my hives today, and the strong colonies are protecting them. If I were in the North I would practice Northern methods, according to the most successful bee-keepers.

Mr. W. H. Laws, of Beeville, Texas, then read a paper on

### THE COMPARATIVE PROFITS OF QUEEN-REARING AND HONEY-PRODUCTION.

In the discussion of the question of the comparative profits of queen-rearing and honey-production, I realize that it is a question that can not be settled by mere figures, made theoretically, but a question that can be solved only by years of practical demonstration right among the bees, and that, too, by a skilled queen-breeder.

To rear good queens, and to have them for the market at all times during the queen-rearing season, expert labor is demanded; without it, commercial queen-rearing is a failure.

To the man who can secure fair crops of honey, year after year, is not always due all the credit for his success; the bees do the labor, the locality furnishes the nectar, the bee-keeper only furnishing the hives and storage-room, and takes care of the swarms.

I know just such men who make money from their bees by honey-production alone, who give the bees no more attention than that just stated; and these men seldom see a queen-bee from one year's end to the other. It is unnecessary to say that such men, though successful in honey-production, are totally unfit for queen-breeding.

Many persons, successful as honey-producers, and also familiar with the conditions generally with the interior of the hives at all times, become enthused at seeing the multitude of young queens hatching about the swarming period, and conceive the idea that if they could only get all these young queens mated, and sell them at a dollar each, (by advertising a little), they would see the dollars roll in, while the bees were waiting for a crop of honey!

There is only one reason why a person should embark in the queen-business in a commercial way, and that is environment, coupled with a natural love for the business.

By environment, we mean where a person is so situated that he can not secure a marketable product of honey from his locality, or where the flow of nectar is slow and of long duration, so that the bees use the greater portion of the season in swarming, or as was the case with myself in a former locality where at times the honey was so bitter that it was impossible to dispose of it on any market.

Where the above conditions exist we can readily see where the queen-breeder might do well, while the honey-producer might have a pronounced failure.

On the other hand, any locality that has short, heavy flows, one or more during the season, and between these

flows comparative idleness of the bees, these conditions would be much better for the honey-producer rather than the commercial queen-breeder.

The best possible condition, therefore, for the queen-breeder is one long-continued, slow flow of nectar throughout the entire season.

In my first years of producing honey, for the market, away back in the '80's, I lived in a locality that sometimes yielded bitter honey; this flow of bitter honey would usually come late in the season, after the white honey crop had been gathered. Some seasons, however, the late summer rains would bring the flow earlier, and the bees would store it right along with the white honey. This would spoil all for market. I remember one winter, when my honey-house floor gave way because of the weight of bitter honey stored for use in mak-



W. H. LAWS.

ing increase the following season, before the busy season had arrived, I had figured out that if this bitter honey was to continue to be a product of my apiary, I would better establish some better form of disposing of it than simply making increase of bees by the use of this honey. So before spring I had already determined that it would be better to turn the product of the apiary to first-class Italian queens rather than bitter honey.

Since changing locality, moving 700 miles further south, conditions and honey-flow have wonderfully changed, and possibly had I not been in the business I would not be now known as a commercial queen-breeder.

My present locality, while almost an ideal one for the rearing of early queens, is also one that is ideal for an early white honey crop, providing weather conditions are favorable, which, unfortunately, have been against us for the past two seasons.

Then there are other features of the business that are to be taken into consideration—the ability of the breeder to rear good queens, and have them to

ship promptly at all times, in and out of season, his aptness and fitness to make and hold a market, by prompt and agreeable service; his prompt attention to correspondence; the satisfactory adjustment of all complaints; the proper caging and mailing of queens, which make tedious and sometimes long journeys through the mails; and his determination to stay with the business through adverse as well as through prosperous seasons. It is a combination of all these little details that go to make success, and it must not be forgotten that many long and weary hours must be put in at queen-rearing that are unknown to the producer of honey.

Since the keeping of out-apiaries for honey has become so practicable and popular, the advantage to the honey-producer exceeds that of the queen-breeder. Hundreds of colonies of bees can be run for honey, systematized into out-apiaries, and be made more profitable to their owner than if he were to devote the same amount of labor to the production of queens, and, necessarily, to a fewer number of colonies.

In the foregoing no mention has been made of the progress of modern or expert queen-rearing, for it is possible to rear queens at a greater profit now than in former years; but to figure the difference in the profits of queen-rearing and honey-production—just when and how this is to be done, I do not know where to begin, for so much depends upon conditions, the locality, and the man, that it would be mere guess-work.

We sometimes know of men who have produced 30,000, or 50,000, or 75,000, and occasionally a man that produces 100,000 pounds, of honey, in a single season, which when sold would bring the modest little sum of \$3,000 to \$10,000. I dare say there are none of our leading queen-breeders who realize half this amount from the sale of queens, not counting the fact that every apiary run for queens is weakened—if not ruined—by the excessive sale of this product. All colonies run for honey are easily kept in a normal, thrifty condition, while queen-rearing yards have frequently to be fed.

We now leave this subject to our brother bee-keepers of this Association, who may weigh the matter with their own minds, and render a verdict according to their judgment.

W. H. LAWS.

Pres. Dadant—The matter is open for discussion now. I think the rearing of queens in the South is of great importance.

W. H. Laws—I wish to say that this matter is of but little importance to the honey-producer. I will also say that I have made a few figures. I think that these people have spent on an average of \$40 to \$50, and, figuring it up, it seems about \$40 per hour while we are in session, and I want to call your attention to the fact that a Mexican Supper has been prepared for our members.

Mr. France—I assure you that this is a part of the program that the Northern people appreciate, and in order to make everything satisfactory, Mr. Toepferwein says that it will be wise to go soon. The distance to this first-class Mexican supper is a little too far to

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walk, so we are advised to take the car. Mr. Toepperwein will go with the first section, and Mr. Laws with the second.

The meeting then adjourned until 8 p.m., and all attended the Mexican supper, given at the "Original Mexican Restaurant."

### SECOND DAY—EVENING SESSION.

The meeting was called to order at 8:30 by Pres. C. P. Dadant. The first half hour was spent in listening to an address by Judge T. M. Paschal, who went to Los Angeles in 1903 to help bring the National Bee-Keepers' Association to San Antonio, his subject being, "The Bee-Keeping Resources of Texas."

Pres. Dadant—There was to have been a paper read at this time by Dr. E. F. Phillips, of Washington, D. C., on "What Science May do for Bee-Keeping," but as he has not arrived yet we will proceed with other business. The subject for the evening is the report of the Resolutions Committee on freight-rates. We will hear from the Secretary.

### REPORT ON FREIGHT-RATES.

We, the Committee on Resolutions, recommend that the following resolution be passed by the National Bee-Keepers' Association, in convention assembled:

*Resolved*, That a committee of three be appointed by the President, of which the General Manager shall be one and be its chairman, for the purpose of securing more favorable freight-rates on the products of the apiary, namely: honey, bees, and beeswax; That the Board of Directors be requested to pass a resolution authorizing and directing the General Manager of our Association to pay out of the funds of the Association the necessary expenses of the Committee, and such expenses as may be incurred in bringing before the railroad officials such articles as may be necessary to demonstrate the packages on which reductions are desired.

ROBT. A. HOLEKAMP,  
JAS. A. STONE,  
C. C. PARSONS,

### Committee on Resolutions.

Pres. Dadant—The matter is open for discussion now, and I would like to hear from the members as to their opinion on these resolutions. Let us hear from Mr. France.

Mr. France—So long as my name is mentioned in the resolutions I ought to be quiet. That involves lots of work; it means hard work, and that committee will have more to do than you realize. I feel that it is of the greatest importance who that committee are. As for suggestions, the Resolution Committee has nearly covered it, what is expected. I don't know of any way that we can use the funds of the treasury to a better advantage than for something of this nature; for every one has more or less shipping, and will get direct results, whatever they may be.

Mr. York—Mr. Chairman, in order to do this I move the adoption of the resolutions.

Dr. Bohrer—I would like to hear the resolution read again.

Wm. Atchley—Does that include express-rates, or freight-rates only?

Pres. Dadant—Freight-rates only. It is more difficult to do anything with express companies than the railroad companies.

Mr. Anderson—I see dawning in the distance that which I have hoped for, at least ever since I have been a bee-keeper. The transportation facilities of the bee-keepers' products have been so inconvenient in many localities that it has actually put a stay on the progress of the industry. I have longed to see the time when the National Bee-Keepers' Association would be acknowledged by the railroad companies as a power in the Nation. I want to congratulate the Committee on Resolutions for the work they have done.

Dr. Bohrer—I, like Mr. France, think that when we tackle a question of this kind we have a big question to buck up against. All that can be done outside of actual organization, not only through the State legislative body, must be done by appealing to the railroad companies ourselves, and bringing our committees to their special notice. I believe they are reasonable men, and something may be accomplished in that way. Now, I understand that much is put up in packages that are condemned, but if these packages are more secure the railroads will take them. This committee can bring this matter to bear and present it, not only to the bee-keepers, but to the railroad companies. There is not a man or woman that has any produce whatever but feels that extortions are practiced upon them. Years ago, up in Kansas, our railroads were controlled by the Inter-State Commerce legislation, but the State can only control the railroad company to an extent, and when it passes out of the State we have no control over it; and it is the duty of every bee-keeper to make an appeal to his Representative in Congress. Whenever the interests of the country are at stake it takes the people to do it; you have to appeal to your Representative. What is the condition we find now in our Legislative Assembly? Are the true representatives of all the industries of this country over-whelmingly in majority in the House and the Senate?

Pres. Dadant—I wish to call your attention to the fact that you are getting off the subject. Keep within the limits.

Dr. Bohrer—I will do it. There is where you have to commence—you have to put representative men in these bodies, or you will not get justice.

E. J. Atchley—I think the question that is before this Association is one of the greatest importance that can come before this body, inasmuch as we do not consider it at all fair that the railroad companies charge us \$450 per car to transport our bees to Colorado or Utah, when a car of cattle will be carried the same distance for \$110. We have appealed as far as possible to the railroad companies, and the agents themselves have felt a surprise that we would have to pay this amount for a car when we attend to the bees, load them ourselves, take them off the cars, and bear all the burden of the journey, while the cattle are loaded by the railroad companies, unloaded possibly two or three times and fed, and they only pay \$110. Under the existing circumstances, when we take

into consideration the rates on bees, when we want to ship, it cannot be done, and I trust and hope that our President may appoint men that may bring to bear, with the force of himself, such a great need of a lower rate on bees that something will be done, and that we will get this lower rate in the near future. I trust he will use his best judgment in selecting this committee.

Mr. Hilton—The resolution that is before the body is certainly a very important one, and much has been said touching directly upon the subject, and perhaps some things have been said that did not touch directly upon the resolution. Having had some experience from a legislative standpoint, I don't know whether appealing to National Legislation would help us very much; but this I do know, the country is divided up into divisions by the railroad companies, and if we act in concert we must appeal to first one division and then the other, until we get the three divisions of the United States to act in unity, to get the best results. I think that the railroad companies are ready to act when they learn the situation, and I understand that they have been informed to the extent that they have made the concessions asked for, and as a committee-man for two years in my State, I found the railroads were ready to listen to men that would interest themselves, and railroad men and railroad corporations are just as ready to respond to the pleas of good men as the President of the United States, or any other man. And, as I say, if this resolution is carried, and this committee pursues its work diligently and personally, a better state of affairs can be brought about, and it behooves us to do the things that are going to help us and our fellowmen. And I say again, that I believe the railroad corporations will meet us with open hearts and open hands to do those things that will increase their business, and decrease our expenses and increase our profits.

Pres. Dadant—If there are no further remarks, I will put the question: All in favor of this resolution signify by saying Yes. Opposed, No. The motion is unanimously carried. The committee has asked that Mr. France act as Chairman. He is one of the best workers. The man who brought this before this meeting is Mr. Muth; he deserves to have a share in this matter, and should be upon the committee. I so appoint him. The third man ought to be a bee-keeper who understands transportation and who produces a good deal of honey, and is acquainted with the railroad companies. Mr. Holekamp should also be on this committee; he has shown what he could do, and he would make a good member. So I appoint those three men.

Mr. York—This committee is going to have a good deal to do, and nothing would help them as much as to have a large membership in this Association. The railroad men are going to ask them how many are in it, and if they could say that they represent 10,000 bee-keepers in this country, they would prick up their ears and listen. I have understood that in some parts of the country the members are beginning to drop off a little bit. It seems to me that we ought

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to go out all over the country and increase the membership. A large membership means a whole lot, and when this committee goes before the Legislature it will stand a better chance of getting what it asks for. I agree with Mr. Hilton, that if we send out these three men, and they are backed up by a large Association, they are sure to win.

Mr. Stone—I don't think anything helped us to secure our Foul Brood Law but the members that were on our roll in the State of Illinois. I believe that Illinois has more members than any other State in the National; it is up in the hundreds.

Pres. Dadant—I wish to say that Mr. Stone knows what he is speaking about and I think it is through him that most of those Illinois names have been gotten on the list. I hope that the members will help add other members to the National through the State associations. Unity makes strength.

Mr. France—While we are on the subject of financial affairs, I will make the following statement, which is a little in advance: Between Nov. 1 1905, and Nov. 1, 1906, I received dues at 50 cents each, from 832, making \$416.00, and I have received the dues of 110 at \$1.00 each, making \$110.00. The resolution that we come in a body was first presented to the National Association by Mr. York at the Philadelphia meeting. The first State to take advantage was New York. My own State (Wisconsin) immediately followed, until nearly all of the States have taken advantage of it. Our expenses this year have been a little more than our total income, and you will see where the expenses have been. On the postal cards calling for reports, I gave suggestions, wherein the National might improve. Too many have looked toward the Manager of the Association to do the work and to make the improvements. I cannot accomplish that alone; it needs your assistance, and those crop report postals with personal suggestions have helped me in more ways than one. I wish more of you would take advantage of the Information Bureau. It is worth more than it costs. I am glad this freight-rate question has come up. Then another question has come up: Cannot the National market the honey? I hope you will never ask the National to sell your honey. It is too big a job. But I do believe that all our State and local organizations can do a great deal in that line. Each bee-keeper ought to sell his own products. This has finally resulted in my getting up what I call a "Seal Label" for the Association's members.

Mr. Muth—Referring back to the committee on freight-rates, don't you think it would be a good idea to have the members write us suggestions?

Pres. Dadant—This you can call for, and let them understand it. Any suggestions to the chairman of the committee will be communicated to the other two members—any information in regard to rates, honey and beeswax.

### THE LEAGUE FUND.

"Has the National Bee-keepers' Association received the fund mentioned at the last meeting, from the Honey Pro-

ducers' League? If so, what is being done with the money?"

Mr. France—There was turned over to me on May 30, 1906, the amount of \$1408.27. There was to be a committee appointed to use it for the purpose for which it was originally intended. The Board of Directors were to appoint a committee. I was notified as Treasurer of the Association that I would be one of that committee, and was asked to suggest some others to work upon that committee. I said, "Let the President and Secretary of the League be the other two. The Secretary is expected to act conditionally, but the President, Dr. Miller, declined to serve, and until a third man is selected nothing can be done. We want a committee that will give it justice and satisfaction. I think, however, that in the near future the fund will begin to move in the direction intended. It is not wasted, the fund is lying there, and there are no commissions on it.

### SOMETHING HISTORICAL.

Dr. Bohrer—I was at the first National meeting of bee-keepers held in Indianapolis, in 1871. At that meeting we received a telegram from Mr. King the editor of a bee-paper, the name I do not know. He was manufacturing and selling a good many hives known as the "American Bee-Hive." At that time the ability and claims of Mr. Langstroth were called in question, and we received a telegram from Mr. King requesting us to meet the bee-keepers in Cincinnati the following February. We agreed to meet them there. Another association was organized called the American, and we concluded to meet one year from that time in Cleveland and unite the two. Mr. Quinby was elected president. I was elected as the vice-president. Mr. M. M. Baldridge and I were there. Mr. Langstroth was at Cincinnati. And speaking of the matter of pictures, we have the photograph of Mr. Adam Grimm. If any of the bee-keepers would like to see it, I would like for Mr. York to exhibit it, as he has it, I think. I also thought I had given him D. L. Adair's photograph, but I think that possibly I have that at home, and, if so, I will send it to Mr. York and have that published, because Mr. Adair, I think, perhaps, gave the first idea of the honey-section so extensively used among bee-keepers. He gave me one of his hives and sent it to me. I think there, perhaps, originated the idea of the section. That is about as much as I know about the first Association. In Cleveland it was known as the American Bee-keepers' Association. The first one was known as the North American Bee-keepers' Association. I think that the third meeting was at Cincinnati. That is the early history of this Association so far as I learned it.

P. D. Jones—I subscribed for the American Bee Journal in Cleveland, Ohio, in 1871, and have taken it ever since. Captain Hetherington, of New York, was also there.

Mr. Coggs—I have had the American Bee Journal since 1861. It was published in Washington then. I have all the back numbers.

Dr. Bohrer—Does anybody know the name of the editor that published the paper shortly before the American Bee Journal was resumed?

Mr. Jones—I can not tell you now who published it, but I have all the numbers at home, I can tell you when I get home.

Pres. Dadant—These are reminiscences of our old members, and we are glad to hear from them.

Mr. York—I think it ought to be made a matter of record that Mr. P. D. Jones, of New York, and Dr. G. Bohrer, of Kansas, who were present at the first meetings of this Association, are attending this meeting.

### NATIONAL OFFICE-HOLDERS.

"Is it true that some office-holders of the National Association are abusing the confidence of the membership for purely personal gain? A charge of this kind has been made against supply dealers."

Dr. Bohrer—I will inquire who the officers are, except it be the President himself. If they are swindling anybody it has not hurt me.

Mr. Muth—I should think that such sorry questions should be thrown in the wastebasket.

Dr. Bohrer—I want to say this: We ought to be pretty certain that it has been abused, and if anyone knows of an officer that has been abusing this confidence, he ought to speak out.

(Continued next week.)

**Honey as a Health-Food.**—This is a 16-page honey-pamphlet intended to help increase the demand for honey. The first part of it contains a short article on "Honey as Food," written by Dr. C. C. Miller. It tells where to keep honey, how to liquefy it, etc. The last part is devoted to "Honey-Cooking Recipes" and "Remedies Using Honey." It should be widely circulated by those selling honey. The more the people are educated on the value and uses of honey, the more honey they will buy.

Prices, prepaid—Sample copy for a 2-cent stamp; 50 copies for 70 cents; 100 for \$1.25; 250 for \$2.25; 500 for \$4.00; or 1000 for \$7.50. Your business card printed free at the bottom of front page on all orders for 100 or more copies. Send all orders to the office of the American Bee Journal.

**Why Not Advertise?**—There are many dealers in bee-supplies, and those who have bees and queens for sale, who are not now advertising, that might increase their business by advertising in the American Bee Journal. The rates charged are very low, as will be seen by referring to the second page of this number. During the next 6 months will be done the bulk of the season's business among bee-keepers. Why not begin at once to let the readers of the American Bee Journal know that you have something to sell? Our advertising columns are open only to those who will give their patrons "a square deal." If you are in that class we will be pleased to have your advertisement in our columns.

**The San Antonio Convention Picture** is a good one. It shows over 100 of those in attendance. We are mailing them, unmounted, for only 80 cents. They can be mounted by a local photographer for only 10 or 15 cents more. We will mail one of these pictures with the American Bee Journal one year—both for only \$1.40. Send all orders to the Bee Journal office.

## American Bee Journal



Conducted by J. L. BYER, Mount Joy, Ont.

### How to Clip the Queen

By the time this is in print, bee-keepers in some localities will have clipped their queens, but in the more northern parts the majority will be just thinking of starting at the work. Nearly every bee-keeper has the "best way," and as the writer is no exception to the rule, I want to tell you how I proceed in this important part of the work in the apiary.

Nearly all instructors say "catch the queen;" but in my estimation this is entirely unnecessary, as I never think of touching a queen with my fingers unless once in a great while one should happen to leave the combs and be found on the side or bottom of the hive.

However, we have to *find the queen*. This done, the lower corner of the frame is let rest on the hive, and is held by one end of the top-bar in the left hand. In the left hand is held a fine pair of curved-pointed surgical scissors bought expressly for the purpose at a cost of 60 cents. As the queen runs *up* the comb, slip the point of the scissors under wing or wings as desired, and the work is done quicker than you can tell how on paper. It may seem a little difficult at first, but by practising on drones it is surprising how easily you can become proficient at the job.

The past 2 seasons I have clipped at least 200 queens each spring this way, and have never made a mistake. I am quite sure that every year a lot of good queens are balled and lost after being handled; with the method described the queen very often hardly notices that she has been touched.

One of Ontario's extensive apiarists spent a day with me last year during queen-clipping, and he declared that I "did the work too quick for him to see how it was done," and at *different* times I had to point the queen out to him after she had run around on the other side of the comb, in order to convince him that I really had clipped her wings.

I am quite sure that after one has learned "how," that he will never go back to the old way of catching the queen in his fingers.

### Sugar-Maple Sap for Bees

A few years ago, while we yet had considerable forest near us, we usually expected our bees to gather considerable of the sap from the sugar maples, that would evaporate on the stumps of trees cut during the winter. I have

seen them during warm days the last week of March and first week in April, working as busily as though there was a regular honey-flow on, and whenever the weather was fine at this season of the year, the brood-rearing received a tremendous impetus.

I remember one spring the branches of the trees were badly broken by an ice-storm, and the sap was oozing out of the hard maples everywhere. Strong colonies stored as much as 2 combs full of the syrup, and one warm evening there was a roar in the apiary as though we were in the midst of a honey-flow.

I am sorry to say this is a thing of the past here, as we now have very little bush left; but this does not prevent me from *thinking* what I would do if I were located near a large bush of sugar-maples. About the time the boys say "sap's runnin'," I would with a light hatchet score lightly on the south sides as many maple-trees as possible near the apiary. To be sure, if the trees were not on my own property I would first secure the owner's permission to do the work.

While we do not often hear anything of the sugar-maple's value to the bees in the early spring, yet there is no question that they are a great help, and at least a few bee-keepers every spring follow the plan I have just outlined.

### Mr. Craig to Continue as Editor of Canadian Bee Journal

On Feb. 11 the bee-keepers' department of the Goold, Shapley & Muir Co.'s establishment was badly damaged by fire, as mentioned on page 228. At the Brantford convention a number of us visited the factory, and while walking through the storeroom where a very large supply of frames, sections, hive-bodies, etc., was stored, I remarked that this would be a bad place for a fire, little thinking that within 2 weeks all of the stock would be destroyed. Fire is bad enough at any time, but particularly so in an establishment of this kind in the early spring, when the bulk of the next season's stock is all ready for shipment.

The bee-keepers' supply business was merely a side-issue with the Goold, Shapley & Muir Co., their firm being extensively engaged in the manufacture of windmills, galvanized tanks, concrete mixers, etc., and in view of the fact of their wood-working plant being destroyed, they decided to sell

out the bee-supply business to Messrs. Ham & Nott, a firm that has engaged in the wood-working business in Brantford for some time. This firm has also taken over the Canadian Bee Journal, and I understand that Mr. W. J. Craig will continue as editor.

The Messrs. Ham & Nott have our best wishes, and we trust that the supply business may be a success with them; and also that the Canadian Bee Journal, under their management, will be a live medium, and truly representative of the calling to which it is devoted.

### Contracted Hive-Entrances in Winter

Allen Latham says that colonies that have entrances contracted to one side of the hive, if the cluster happens to be on the opposite side, die every time. Editor Root agrees pretty much with this view, and yet, not so very far from here, lives a well-known bee-keeper who winters from 300 to 500 colonies with the hive-entrances all at one corner of the hive. Where he lives the thermometer often falls to 20 degrees below zero, and the bees are generally confined for 4 months or more without a flight. Yet he winters the bees as successfully as any other bee-keeper in the vicinity.

It would be interesting to have Mr. Latham explain why his theory does not work out in practise, here in Ontario.

### New Pure Food Law

Under "scare" headlines a well-known bee-keeper and chemist advertises in one of our papers as follows:

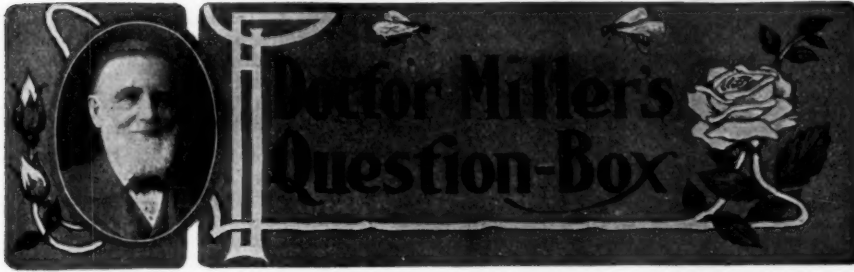
"The new food law takes effect Jan. 1, 1907." ..... "Even that gathered from your own bees is not sure to pass inspection if it is near a city or honey-dew localities, or you feed your bees sugar syrup in the fall."

It appears to the writer that this is pretty strong, and if the Pure Food Law is going to work down fine like that, there is a possibility that it may act as a boomerang.

As to honey-dew, if a small quantity of that in honey would come under the ban, I suspect very little Ontario honey would have passed muster last year. Anyway, suppose a bee-keeper sent a sample to said chemist for analysis, and the verdict was "genuine," how would he be sure that a sample taken from another tank would turn out the same? Suppose, in a pinch, he might send the whole crop for analysis in order to be positive. This might be a good thing for the chemist, particularly as the bee-keeper would likely be glad to turn over the honey to pay the fees for analysis!

Joking aside, I believe there is a possibility of "straining at a gnat and swallowing a camel" in this matter, and while I have no sympathy with adulteration, it is to be hoped that United States apiarists will not be in such a dilemma as the advertisement quoted from would lead us to believe was the case.

# American Bee Journal



Send Questions either to the office of the American Bee Journal, or to  
Dr. C. C. MILLER, Marengo, Ill.  
Dr. Miller does not answer Questions by mail.

## Growing White Sweet Clover

Have you any white sweet clover seed for sale? If not, where can I find some. Also at what time of the year should it be planted?  
MICHIGAN.

ANSWER.—I have none; but you should generally find it advertised in the bee-papers about this time of year. It may be sown spring or fall, or any time when red clover may be sown in your locality. The principal point to look out for is to have the ground rolled or tramped down hard after it is sown. If the ground is soft the sweet clover is likely to be heaved out the first winter. It seems to do best on a hard roadside, and the nearer to that you get your ground the better.

## Testing the Purity of Italian Queens

Please turn to page 259 and tell us whether your views as to the purity of Italians agree with Mr. Doolittle or "Subscriber."  
WISCONSIN.

ANSWER.—When a man as prominent in apicultural literature as Mr. Doolittle comes out in a positive manner on any particular point, especially when he controverts what some one else has said, he must expect to receive some whacks in return unless he has somewhat reliable facts to back him up. More than once he and I have crossed swords, and there are few men I'd rather have a spat with than the same G. M. Doolittle, for when the smoke of battle clears away we're always as good friends as ever; so I have no need to hesitate to give my opinion in the present case. And that opinion is that you can swallow every word that Mr. Doolittle has said in his article, page 259, and he has done good service in writing just as he has written. I'll call attention to only one point. "Subscriber" says, "Every drone must have 4 yellow bands..... Every drone is marked alike." I've seen a good many drones in my time, have reared them from a number of queens imported from Italy, and I don't recall that I ever saw one that could be fairly said to have one yellow band, if indeed a band of any kind, to say nothing of 4 yellow bands. Yes, indeed, Doolittle in all right in that article.

## Keeping Bees in a Back Yard

1. I live in town and have ordered 2 strong colonies of bees to be delivered in May. I expect to put them in my back yard, which is 30x40 feet, with a good building on the alley 6½x9 feet and 9 feet high; or would you advise me to put them in this building? The building has house-siding and floor laid with flooring and a shingle roof. There is a door in one end and a good window in the other.

2. There is a dwelling house on the next lot, about 10 feet from the fence, which is 8 feet high. There is a 6-foot tight board fence all around my yard except the side which my house is on. Is this fence high enough to protect people driving along this alley, and

the people who live in the house close to the fence?

3. In case I put these bees in the building it will be necessary to connect the hives to the outside of the building with a 2-inch tube. Will they do as well in the building as outside?

4. Will not rats or mice crawl into this tube in the summer at night and damage the combs in the brood-chamber?

5. If I should nail coarse wire-cloth over this hole would that interfere with the bees while working?

6. Do you think I have made a mistake in attempting to keep bees in town?

I do not know anything about bees except what I have read in text-books.

PENNSYLVANIA.

ANSWERS.—1. Very likely it will not be as well as to put them outside.

2. Very likely it will protect successfully. The mere fact of being in a building would be no protection to outsiders against the bees, provided the bees arose from the same height in each case, and the likelihood is that they would be higher in the building than on the ground. A bee rising from the ground to cross that 6-foot fence would not be as likely to interfere with a passer-by as one starting from a point higher up.

3. I'm afraid not quite so well.

4. No; the bees are thoroughly competent to protect their combs night or day in summer.

5. No; 3 meshes to the inch would allow free passage to the bees, while barring mice. But as already intimated, it would be useless to do anything of the kind in warm weather; the bees ask no help from you.

6. Likely not; yet you can tell better after trying. Much depends upon the character of your bees. There are bees so cross that they would be sure to make trouble for you. Something also depends upon your management. You can stir up even gentle bees by untimely handling so they will sting everything within reach. Be careful about opening hives when bees are not gathering much. There may be an advantage in working rather late in the day, for if you make bees cross in the morning they have the whole day to trouble the neighborhood. If you find your bees are not gentle you ought to introduce queens of gentle stock, pure Italians, or possibly Caucasians.

## Lake Superior District for Bees

Please give me any information you can concerning the State of Wisconsin near Lake Superior for bee-keeping. I am thinking of going there about April 1.  
KENTUCKY.

ANSWER.—There are many fine locations in Wisconsin, especially where basswoods are plenty. The chief trouble is that in general such locations are fully occupied. It would not, of course, be wise toward yourself nor right toward others, to locate where the ground is already occupied, so the thing to do is to look over the ground personally to find the proper opening before settling. Of course, as to individual locations, I can give you no information.

## Bee-Keeping in North Dakota—Trouble With Queens

1. Do bees do well in North Dakota? started last spring with one colony and increased to 4. Each hive was full in the fall besides 30 pounds of surplus honey which took away. The hives are 10-frame, each frame about 17x8½ inches. One frame of honey weighed 9 pounds. The honey is as clear as water and of fine flavor. It is obtained mostly from a flower that looks like sage which grows in the wheat-field. My bees are in the cellar and are doing well so far.

2. I had bad luck with one colony. Their first queen was lost in mating. I gave them brood, and their second queen was lost. Then I sent for 2 queens. I placed one in on top of the frames in the cage and let the bees eat her out. In a few days I examined and she was missing. Then I gave them the other. She went also. Then I gave them more brood. They reared a queen, but it was so late she failed to be fertilized. What should I do with that colony in the spring?

NORTH DAKOTA.

ANSWERS.—1. It seems to be a very good place; at least your bees did well last year. If you can have such success every year you will have no occasion to complain.

2. The best thing is to unite with other colonies, unless you want to send off for a laying queen. Very likely you'll not be willing to take such advice, but will give the queenless bees a frame of brood to have them rear a queen. That looks on the face of it a wise thing to do; but if you're wise you'll not do it. In the long run, you'll be the gainer to unite now, and not try to rear any queens till later on.

## Bees Died in Winter—Swarming Out—Spring Management—Robber-Bees

1. I put 6 colonies into my cellar last fall; 3 strong in bees and stores and 3 that were rather weak in both. The weak ones came out all right and the strong ones died. My cellar is rather warm, and those large colonies were very uneasy all the fore part of the winter; the bees died very fast, and they were all dead 6 weeks ago. What was the cause of their dying?

2. I set the bees out of the cellar March 22, the thermometer being 60 above zero in the shade. They had been out but 2 hours when a swarm came out of one of the hives and settled on a bush and was there about an hour. Then I put it into another hive with some old combs that I took from the hives where my other bees had died. Was that all right? By the way, the old combs had plenty of stores.

3. Isn't it a rare thing to have a swarm so early in the spring and so quickly after setting out, especially in this northern locality? What was the cause?

4. I have about 25 old combs that I took from the 3 hives where the bees died the past winter. About ¼ of the lot of combs are filled with good honey and considerable pollen that is very sour, and the bottom part of the comb is rather moldy. Will the bees clean them up, or will they do to give to a newly-hived swarm later on?

5. Will they do to put into my other hives this spring for stimulative feeding?

6. Do you contract the entrance in the spring during cool nights? If so, how much? Is it not a good plan to contract the entrance on account of robber-bees in spring?

7. What is a good sign of bees being robbed, and what will stop them?  
IOWA.

ANSWERS.—1. The warmth of the cellar may have had something to do with it, but probably still more the closeness, and lack of pure air. The stronger the colony the more this would cause uneasiness, and the more rapid the deaths. If there was light in the cellar, that would make it worse.

2. Yes, that was all right, although it probably would have been as well to have given

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them at least part of their own combs, for likely they were cleaner than the combs of the strong colonies that died. That is, you would return them to their own hive, and then give them enough full combs from the dead colonies.

3. Unfortunately such swarming out is not so very uncommon. It is not swarming in the way of usual swarms later in the season, but merely deserting the hive, and may have been what is called a "hunger swarm," deserting the hive because near starvation, although sometimes colonies desert in spring, leaving plenty of stores in the hive, and it's not possible to tell why they desert.]

4. Yes, the bees will clean them up, and they will do to have a swarm on, unless too sour and dirty, in which case the swarm would desert.

5. I'm not sure whether it would be exactly classed as stimulative feeding, but you can do nothing better with them than to give them to settled colonies to clean up. Don't give too many at a time, if they are pretty bad; but 2 or 3 at a time in the brood-chamber will be cared for all right, giving them in place of combs that are very light in honey. Or, you can give a whole hive-body filled at one time, putting it under the colony, only you must have things pretty well closed up so as not to invite robbing. Everything must be close and snug except the one entrance at the bottom of the lower story, and that should be as small as possible without troubling the bees about getting out and in.

6. Yes, just as soon as my hives are taken out of the cellar the entrances are contracted to a hole  $\frac{3}{4}$  to 1 inch square. It helps against robbing, and keeps the bees warmer, day and night.

7. When you see unusual activity at the entrance, especially if the colony is weak, catch one of the bees that comes out with considerable bustle, kill it, and see if it has honey in its sac. If it goes out with a full sac, you may count there's robbing. Close the entrance so that only 1 or 2 bees can pass at a time, pile hay or straw at the entrance and at the sides till as high as the hive, and drench it well with water. In a large number of the cases of robbing that occur in spring, it is because the colonies are queenless and practically worthless, and the best thing in such case is to let the robbers carry out all the honey without disturbing them. About the worst thing is to take the hive away, for then the robbers will pitch into the adjoining hives. If you take the hive away, put in its place another hive just like it, with a comb or combs having just a little honey in them, letting the robbers clean out the little honey without disturbing the neighboring colonies.



### Wintered Poorly—His Best Adviser

On March 25 I put my bees on the summer stands with but little encouragement. Out of 27 colonies I have only 8 left. That is the result of bad fall honey. I will not do like Mr. "J. T. P.," on page 225, discontinue my best adviser. I will stay by the "old reliable" American Bee Journal.

CHAS. O. BERGSTRAND.

Amery, Wis., March 29.

### Poor Season in 1906—Another Tall Bee-Keeper

Last year was a poor season for bee-keepers here. I secured 1150 pounds of comb honey and 789 pounds of extracted from 74 colonies, spring count. I now have 90 colonies in good condition. I sell all of my honey around the country and at home at from 14 to 16 cents a pound for comb honey, and 10 $\frac{1}{2}$  cents for ex-

tracted. It is all sold. I work alone with the bees from spring until the harvest is over, about the first of August. Then after that I work at my trade some, which is that of a carpenter and joiner.

It seems to me that the Editor of the American Bee Journal, on page 66, is inclined to boast of Mr. Louis H. Scholl, and that Mr. A. F. Foote, on page 216, is somewhat jealous of him, his man, Mr. Isaac Wayne, being 2 inches better—6 feet and 4 inches tall. Well, now I think that I must blow my own horn, as there seems to be no one else to do it. I am 6 feet and 8 inches in height now, and until 5 or 6 years ago I stood 6 feet 9 $\frac{1}{2}$  inches in my stocking feet. I was born of German parents in East Troy, Walworth Co., Wis., in February, 1844. I am not a fleshy man, but at present tip the scales at 257 pounds. In the latter part of my teens and twenties I challenged the State of Wisconsin for a Badger of my equal or superior, through the Fond du Lac Reporter, but they did not produce him, and I still hesitate to take a back seat.

THEO. REHORST.

Campbellsport, Wis., April 2.

### Fears Chilled Brood

We have been having fine weather until the last 3 days. White clover has started and promises to be abundant.

I took my bees out of the pit, or trench, March 28. Of the 42 colonies buried I took out 39 in good shape; but the sudden chill that has struck us here in Michigan makes me fear chilled brood.

C. H. BENSON.

Bellevue, Mich., April 2.

### Results of Last Season

From 26 colonies last season I took over 1600 pounds of section honey, realizing something over \$200. I had only one swarm. Here is the report of one colony I kept on the scales: It was No. 13. First week of May, 3 pounds; 2d week, 3; 3d week, 17; 4th week, 13 $\frac{1}{2}$ ; 5th week, 19; 6th week, 15; 7th week, 7; 8th week, 4 $\frac{1}{2}$ ; 9th week, 4; 10th week, lost 2 pounds; flow over. There was a loss of from  $\frac{1}{4}$  to  $\frac{1}{2}$  pound per night by evaporation. The total yield was 84 pounds of section honey from this one colony. The best day's work was the last of May, gaining 6 $\frac{1}{2}$  pounds.

I commence this spring with 29 colonies.

Bower Mills, Mo.

A. E. FATTON.

### The Farmer Trade in Honey—Early Spring

This is about the closing of the season for selling honey, and my honey is about all sold. The farmer trade has been good. I have a good many customers among them that buy a 60-pound can of extracted honey at a time. Just the other day I received an order from a prominent farmer not many miles distant, saying that they were going to build, and had decided that honey was cheaper than butter, and ordered two 60-pound cans. The price was 8 cents, and he paid the freight. Now if farmers generally should tumble to the fact that honey at 8 cents is economical, what a change it would make in our business. We would hardly be able to supply the demand. It is the duty of each producer to do his share to educate the public along this line.

I have sold a good share of my honey the past season in the 10-pound self-sealing pails. I like the package, and shall try each year to sell an increasing percentage in this package unless I can dispose of smaller lots. I get 10 cents per pound in the 10-pound pails, and, of course, it pays me to sell as much as I can in that way. I think the paper package described recently would be a good one, and I wish to try it. I don't see why it would not work just as well for a 2-pound or a 5-pound package as for a 1-pound.

I am not at all opposed to comb-honey production, but I think the extracted form is the one in which the greater part of it should be used, and always will be. The scarcity of

comb honey will bring the price up to that point where it will pay some to go to the trouble of producing it, and thus the demand will be supplied.

On March 21 our bees were out of winter quarters here and carrying pollen, although there were many heavy patches of ice along the river. This is early for this latitude, and may not be for the best advantage of the bees. They may get too much brood started, and cold weather coming on again, they would be liable to suffer. However, indications are that spring has come to stay. We hope so.

HARRY LATHROP.

Bridgeport, Wis., March 23.

### Wintered Well in Small Hives

I have had the bees out of the cellar 2 days. They have had a fine airing, and seem to be all right. I don't know that any have died. We have taken them out about 3 weeks earlier than usual for us, while the weather was cool, so as to prevent the crazy first flight and mixing up, and have avoided it. I don't think they have mixed worse than if they had wintered on the summer stands; and they are only 4 days later in getting their first flight than the few I had packed in leaves and hay outside. All seem to be strong. I shall know more about them in a few days. Our cellar arrangement has many advantages in this climate, the principal one being that of saving the labor or trouble of heavy hives or packing. A small man, weighing about 125 pounds, carried out 64 hives in about 2 hours; and the evening before carried out 40 in about the same time. Smaller hives have some redeeming qualities besides requiring less lumber to make them.

T. F. BINGHAM.

Farwell, Mich., March 25.

### Requeening a Laying-Worker Colony

I have read C. P. Dadant's article on page 235, as given before the Illinois convention, on drone-laying workers, and how to introduce a queen to such a colony. By this method I have never succeeded in introducing a queen to such a colony, but by the following method I have never failed:

Of course, I have never used the comb-honey stopper. My method is to use a queen a year or more old. I first select the queen to be used, put her into a cage without any feed and keep her there for 30 or 40 minutes. Then I take her to the laying-worker colony and gently lift out a comb with no honey, if possible, or little of it, and also with few bees on it. I allow her to crawl from the cage onto the comb where there is no honey or bees. She at once searches for honey, and will soon run up against some bees that will at once supply her needs, then gently replace the comb and close the hive. Let them alone for 4 days or so. She will be laying at once. I have used this plan for a long time and have never lost a queen. It would not do to use a young queen, nor do I think it pays generally to try to save a laying-worker colony. Better unite them with another colony by putting the one over the other with a couple of newspapers between, making a few holes in the center of the paper with a lead-pencil or some other small article. Any colony you wish to unite that way should be reversed, or the end that was front put back, as they will usually eat down through the paper at the end where they think is their entrance, and consequently they come into contact with the bees of the lower colony at the back, and away from the guards. A laying-worker colony of bees must have a frame of emerging bees given to them in 4 or 5 days after the introduction of a queen.

Bees came through in poor condition generally here, owing to lack of young bees. We should have fed a substitute for pollen last fall, consequently they did not breed up through the winter. All strong colonies are doing well now on mesquite and catclaw.

Calaveras, Tex., March 29. H. PIPER.

# American Bee Journal

## CONVENTION NOTICE.

**Minnesota.**—The Minnesota Bee-Keepers' Association will hold its spring meeting on Saturday, April 20, 1907, at the Old State Capitol in St. Paul. The afternoon session will commence at 1 o'clock, and the evening session at 6 o'clock. Free refreshments will be served from 5 to 6 o'clock, by the lady members of the Association. A leading feature of the afternoon session will be a practical demonstration of the modern method of queen-rearing, by Chas. Mondeng; and at the evening session the simplest way to cure foul brood. Papers will also be given on, "Spring Management," by Wm. McEwen; "Production of Comb Honey," by Chas. Blomquist; "Shipping Bees and Honey," by Mr. Gent; "Bee-Keeping in Connection with Farming," by Pres. H. V. Poore; "Bee-Keeping for the Beginner," by W. R. Ansell; and a paper by Mrs. E. E. Merrill. Questions on bee-keeping by any one interested will be fully discussed and answered. Lay everything aside and attend this meeting; you will never regret it. We want every one to come, whether a member or not. Brother and sister bee-keepers are all cordially invited. The membership dues are \$1.00 a year, including membership in the National Bee-Keepers' Association.

CHAS. MONDENG, Sec.

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Box 340, Norwalk, Ohio.

15A26t

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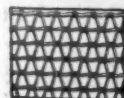
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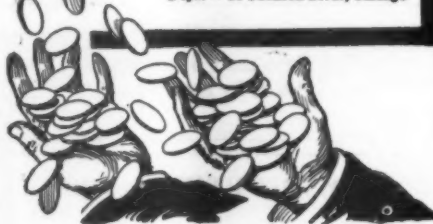
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CHICAGO, April 4.—Market is quite bare of best grades of comb honey. When sales are made it is on a basis of 15¢@17¢, with very little outlet for the off-grades. Extracted, 7¢@8¢; off grades, 6¢@6½¢. Beeswax in good demand at 30¢@32¢. R. A. BURNETT & CO.

PHILADELPHIA, Mar. 11.—The comb honey market has been quite active in the last two weeks, and the continual cold weather has kept things moving. Many cheap lots have been sent in from the producers, which have had a tendency to bear on the market and weaken the prices somewhat. Fancy white comb honey, 15¢@16¢; No. 1, 14¢@15¢; amber, 12¢@14¢. Fancy white extracted honey, 7¢@8¢; light amber, 6¢@7¢. Beeswax very firm, 32¢.

We are producers of honey and do not handle on commission. WM. A. SELSER.

NEW YORK, Jan. 15.—The stock of white comb honey is pretty well exhausted, and we do not expect any more arrivals of large lots from now on. Prices are firm, and we quote from 15¢@16¢ for fancy white; 13¢@14¢ for No. 1; 12¢ for light amber. There is quite a little dark and buckwheat on the market, but no overstock, and we think that all of it will be disposed of before long at present prices, which we quote from 10¢@12¢, according to quality. Extracted honey very firm, with sufficient supply to meet demand. California white sage is bringing from 8¢@8½¢; light amber, 7½¢; amber, 6½¢@7¢; buckwheat extracted in fairly good demand at 6¢@6½¢. Southern in barrels finds ready sale at from 55¢@70¢ per gallon, according to quality. Beeswax firm and steady at 31¢. HILDETH & SROELKEN.

DENVER, Feb. 14.—Producers in this State are practically closed out of both comb and extracted honey. We have not sufficient good comb honey to supply our local trade, but have a good supply of white extracted of excellent quality. We quote strictly No. 1 white comb honey, per case of 24 sections, at \$3.20; No. 1, light amber, \$3; and good No. 2, \$2.80. White extracted, 8¢@8½¢ per pound; light amber, 7½¢@8¢. Clean, yellow beeswax, 27¢@28¢, delivered here.

THE COLO. HONEY-PRODUCERS' ASSN.

CINCINNATI, Mar. 11.—There is very little demand for extracted honey at this writing, which is only natural, owing to the unsettled

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weather at this time of the year. However, we are looking forward with interest to a revival of trade, as soon as the warm spring days are here. We quote amber extracted honey in barrels at 6½¢@7½¢, the price depending upon the quantity purchased. Fancy table honey in crates of two 60-lb. cans each, at 8¢@9¢. There is little demand for comb honey owing to the lateness of the season. Choice yellow beeswax, 32¢@35¢, delivered here.

THE FRED W. MUTH CO.

INDIANAPOLIS, Feb. 25.—comb honey is not plentiful, but demand is slack. Fancy white comb brings 16¢@17¢; No. 1 white, 14¢; amber, 12¢@13¢. Best grades of extracted honey bring 8¢@9¢; amber, 6¢@7¢. Good average beeswax sells here at \$35 per 100 pounds.

WALTER S. POWDER.

TOLEDO, Nov. 30.—The market on comb honey remains about the same as last quotations, but

has been coming in much more freely, as beekeepers seem to be very anxious to get rid of their stock. Fancy brings in a retail way 16¢; extra fancy, 17¢; No. 1, 15¢; buckwheat, 15¢. Extracted white clover in barrels brings 7¢@7½¢; cans the same. Beeswax, 26¢@28¢.

THE GRIGGS BROS. & NICHOLS CO.

KANSAS CITY, Mar. 30.—The demand for comb honey is light, as also are the receipts. The market is about bare of extracted. We quote: No. 1 white comb, 24-sec. cases, \$3.10 to \$3.25; No. 2, \$2.50 to \$2.75. Extracted, white, 8¢@9¢; amber, 7¢@8¢. Beeswax, 28¢.

C. C. CLEMONS & CO.

CINCINNATI, April 3.—The market on honey is entirely bare of fancy comb honey; No. 2 selling at 12½¢, and slow sales. Light amber extracted sells in barrels at 5½¢@6¢. Beeswax, 32¢, delivered here.

C. H. W. WEBER.

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S. D. Buell, Union City.

NEBRASKA—Collier Bee-Supply Co., Fairbury.  
CANADA—N. H. Smith, Tilbury, Ont.  
ARIZONA—H. W. Ryder, Phoenix.  
MINNESOTA—Northwestern Bee-Supply Co., Harmony.

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